
Research Product 99-07

# Tacit Knowledge for Military Leaders: Platoon Leader Questionnaire



March 1999

Fort Leavenworth Research Unit

U.S. Army Research Institute for the Behavioral and Social Sciences

Approved for public release; distribution is unlimited.

**U.S. Army Research Institute**
**for the Behavioral and Social Sciences**

**A Directorate of the U.S. Total Army Personnel Command**

**EDGAR M. JOHNSON**
**Director**

---

Research accomplished under contract
for the Department of the Army

Yale University

Technical Review by

MAJ Ricardo J. Mitchell, 11th Infantry Regiment

## NOTICES

**FINAL DISPOSITION:** This Research Product may be destroyed when it is no longer needed. Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

**NOTE:** This Research Product is not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

# REPORT DOCUMENTATION PAGE

| 1. REPORT DATE (dd-mm-yy) | 2. REPORT TYPE | 3. DATES COVERED (from. . . to) |
|---|---|---|
| March 1999 | Interim | October 1993 – September 1998 |

| 4. TITLE AND SUBTITLE | 5a. CONTRACT OR GRANT NUMBER |
|---|---|
| Tacit Knowledge for Military Leaders: Platoon Leader Questionnaire | MDA903-92-K-0125 |
| | 5b. PROGRAM ELEMENT NUMBER 0602785A |
| 6. AUTHOR(S) Jennifer Hedlund (Yale University); Wendy M. Williams (Cornell University); Joseph A. Horvath (IBM Consulting Goup); George B. Forsythe & Scott Snook (USMA); John Wattendorf (IBM); Jeffrey A. McNally (USA); Patrick J. Sweeney (USA); Richard C. Bullis (Center for Army Leadership); Martin Dennis & Robert J. Sternberg (Yale University) | 5c. PROJECT NUMBER A790 |
| | 5d. TASK NUMBER 1111 |
| | 5e. WORK UNIT NUMBER C03 |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Yale University Department of Psychology P.O. Box 208205 New Haven, CT 06520-8205 | 8. PERFORMING ORGANIZATION REPORT NUMBER |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Avenue Alexandria, VA 22333-5600 | 10. MONITOR ACRONYM ARI |
| | 11. MONITOR REPORT NUMBER Research Product 99-07 |

12. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

13. SUPPLEMENTARY NOTES

CORs: Trueman Tremble & Rex Michel

14. ABSTRACT *(Maximum 200 words)*:

Tacit knowledge is defined as knowledge grounded in experience, intimately related to action, and not well supported by formal training and doctrine. Tacit knowledge of leadership used by Army officers at three different levels of command have been identified, assessed, and developed into assessment questionnaires for each level. The questionnaires have been construct validated and proven to predict certain leadership effectiveness ratings at each level and to do so better than measures of verbal reasoning ability, tacit knowledge for business managers, or experience. This product contains the leadership tacit knowledge questionnaire for platoon leaders. Instructions are given for administering and scoring the questionnaire and recommended applications are described. The document begins with a brief summary of the development and validation of the questionnaire.

15. SUBJECT TERMS

Tacit knowledge Leadership knowledge Leadership Leader effectiveness Leader training

| SECURITY CLASSIFICATION OF | | | 19. LIMITATION OF ABSTRACT | 20. NUMBER OF PAGES | 21. RESPONSIBLE PERSON (Name and Telephone Number) |
|---|---|---|---|---|---|
| 16. REPORT | 17. ABSTRACT | 18. THIS PAGE | | | |
| Unclassified | Unclassified | Unclassified | Unlimited | 88 | Rex R. Michel DSN 552-9790 |

**Research Product 99-07**

# Tacit Knowledge for Military Leaders: Platoon Leader Questionnaire

**Jennifer Hedlund**
Yale University

**Wendy M. Williams**
Cornell University

**Joseph A. Horvath**
IBM Consulting Group

**George B. Forsythe and Scott Snook**
United States Military Academy

**John Wattendorf**
IBM

**Jeffrey A. McNally and Patrick J. Sweeney**
United States Army

**Richard C. Bullis**
Center for Army Leadership

**Martin Dennis and Robert J. Sternberg**
Yale University

**Fort Leavenworth Research Unit**
**Stanley M. Halpin, Chief**

**U.S. Army Research Institute for the Behavioral and Social Sciences**
**5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600**

**March 1999**

---

**Army Project Number**
**2O262785A790**

**Personnel Systems and Performance Technology**

## FOREWORD

A primary mission of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is to enhance military readiness through programmatic research that supports the effective performance of Army leaders. To accomplish this, ARI and the United States Military Academy (USMA) established the Center for Army Leadership and Organizational Research (CLOR) at USMA to conduct research as part of ARI's research program in the areas of organizational leadership and leader development, education and training. This product is part of the ARI exploratory development research program formulated and undertaken by the CLOR.

This product is the result of a project jointly undertaken by researchers at USMA and at Yale University. The overall objective of the project was to test the applicability of a theory of tacit knowledge to military leadership. Previous research had shown that tacit knowledge acquired through practical on-the-job experiences, is related to executive and managerial effectiveness in civilian organizations.

The rigorous methodology used in identifying and assessing tacit leadership knowledge has produced tacit knowledge inventories that apply to platoon, company and battalion levels of command. This product is the Platoon Leaders Tacit Knowledge Questionnaire. Although further testing and standardization would be required to make this a formal assessment instrument, the methods used to derive the questionnaire make it a valuable tool for teaching, group discussion, and self-assessment and training.

ZITA M. SIMUTIS
Technical Director

TACIT KNOWLEDGE FOR MILITARY LEADERS: PLATOON LEADER QUESTIONNAIRE

CONTENTS

LIST OF TABLES

# TACIT KNOWLEDGE FOR MILITARY LEADERS: PLATOON LEADER QUESTIONNAIRE

## Introduction

The Tacit Knowledge in Military Leadership project is a collaborate effort between researchers at Yale University, the U.S. Military Academy, and the U.S. Army Research Institute to discover what successful leaders know about how to lead and to use this insight to recommend ways to develop effective leaders. According to Army doctrine (DA Pam 350-58), leader development is based on three pillars: 1) institutional training (formal schooling), 2) self-development, and 3) operational assignments. All three pillars are viewed as important to leadership development, yet relatively little is known about the role of operational assignments relative to institutional training. While most practitioners tell us that Army leaders learn about leading while doing real work in the motor pool, in the field, and in the barracks, there has been little effort to understand how this actually happens -- how Army leaders develop "as leaders" while on the job. This interest in understanding how leaders learn about leading while on the job led to the work on tacit knowledge by Robert Sternberg. The tacit knowledge work offered a framework for studying leader development through operational assignments.

A large body of research has shown that learning from work experience has an implicit or "behind the scenes" quality and that much of the knowledge acquired in this way is of a hidden or "tacit" nature. Tacit knowledge is defined as work-related knowledge that is action-oriented, practically relevant, and generally acquired on one's own. By action-oriented, we mean that tacit knowledge takes the form of "knowing how" rather than "knowing that." Practical relevance refers to the value of the knowledge in supporting personal goals. And acquired on one's own means that the environment (i.e., other people or media) does not necessarily support the attainment of such knowledge. Knowledge with these properties has been shown to be predictive of success in a variety of professional domains (Sternberg et al., 1995). We expected that these "lessons from experience" would be important to successful military leadership and therefore implemented a long-term project to study the tacit knowledge of military leaders.

The goals of the Tacit Knowledge in Military Leadership project have been: (1) to identify the tacit knowledge of effective military leaders; (2) to construct inventories to measure the possession of tacit knowledge; (3) to validate these measures against indicators of leadership effectiveness; and (4) to recommend ways to apply the products and insights from the tacit knowledge work to leader development. The results of this work can be found in several reports referenced in the current document (Hedlund et al., 1998; Horvath, Forsythe, et al., 1994; Horvath, Williams, et al., 1994; Horvath et al., 1996, 1998). One of the products generated from this work is a set of inventories developed to measure the tacit knowledge of current leaders. Inventories were produced for three levels in the chain-of-command: platoon leaders, company commanders, and battalion commanders. This document presents and describes the Tacit Knowledge for Military Leaders: Platoon Leader Questionnaire. We briefly explain the development of the Platoon Leader Questionnaire (PLQ) and summarize evidence that supports the relevance of tacit knowledge to leadership effectiveness. We also make recommendations as to some potential uses of the inventory in Army leadership development.

## Inventory Development

The development of the Tacit Knowledge for Military Leaders: Platoon Leader Questionnaire involved several steps. First, we identified the experience-based knowledge of Army officers by reviewing the military practice literature and interviewing platoon leaders. Second, we compiled the stories and advice obtained from the interviews and judged each story according to how well it fit our definition of tacit knowledge. Third, we asked incumbent officers to rate the quality of simplified versions of these stories. These ratings were used to select the most promising items for use in developing a measure of tacit knowledge. Finally, for those items selected, we expanded the simplified form of the items into a more detailed problem scenario accompanied by a set of possible responses which created a complete tacit knowledge question. We elaborate upon each of these steps below.

### Identification of Tacit Knowledge

In the first phase of the inventory development, we conducted a systematic review of Army trade publications to obtain preliminary insight into the experience-based, tacit knowledge of Army leaders (see Horvath, Williams, et al., 1994). This review was followed by interviews with 30 platoon leaders to acquire concrete examples of what these leaders have learned on their jobs (see Horvath, Forsythe, et al., 1994). These interviews produced a body of knowledge in the form of interview transcripts and summaries. During the interviews, we asked officers to "tell a story" about a personal experience from which they learned something important about leadership at the platoon level. Interviewers and interviewees worked together to clarify and capture the important features of these experiences. From the transcripts of these interviews we compiled a set of story summaries which formed the basis for tacit-knowledge inventory questions.

Next, we asked a panel of military experts to reach agreement on whether or not each story summary met our criteria as tacit. These experts were three senior members of the research team (two colonels and one lieutenant colonel) from the Department of Behavioral Sciences and Leadership at the U.S. Military Academy who had 72 years of military experience combined. Knowledge was considered tacit if it was: (1) acquired through personal experience, (2) intimately related to action, (3) not well supported by formal training or doctrine, and (4) pertained to leadership rather than technical performance. Stories that met these criteria were rewritten into a simplified, standard format using a series of "if-then" statements. An example of this format for a story from a platoon leader is shown below in Table 1. After narrowing down the set of stories, we asked members of the expert panel to sort the remaining knowledge items into categories of their own devising. This sorting produced content-based categories of tacit knowledge that provided early insight into developmental challenges at the platoon level. These categories (see Table 2), which we refer to again in a later discussion, were also used to select representative items for inclusion in the tacit knowledge inventory.

Table 1.
Sample Leadership Story and Summarized Tacit Knowledge Item

---

Leadership story: Taking Charge

I took charge of my platoon when they returned from the Gulf War. Consequently, all members of the Platoon were war veterans and I felt I had zero credibility since I did not serve in the Gulf or pass Ranger School. I put a lot of effort into developing a plan to build my credibility. I worked hard to get in excellent physical shape so I could excel in PT. Also, I studied Field Manuals and military history in order to gain technical and tactical competence. I ensured that I always had good military bearing by having a pressed uniform, highly shine boots, and good posture. When I spoke to my soldiers I used a tone of voice that conveyed respect. I did not change procedures that worked and I was willing to listen to my soldiers.

Coded tacit knowledge item: How to establish your credibility when taking over a unit with combat veterans.

IF you are taking over a unit that has combat veterans in it
and
IF you do not have combat experience
and
IF you are worried about establishing credibility in your platoon
THEN work hard to get into top physical shape so you can excel in PT. Increase your technical and tactical competence by reading Field Manuals and military history. Present good military bearing by having your boots highly shined, uniforms pressed, and ensuring that you have erect posture. When you speak to your soldiers, use a tone of voice that conveys respect. Do not change procedures that worked. Listen to your soldiers comments and suggestions.
BECAUSE the above activities build the skills and image necessary to establish credibility with your soldiers.

---

Table 2.
Categories of Tacit Knowledge for Platoon Leaders

| Category | PLQ questions |
|---|---|
| Motivating subordinates | P1, P9, P11 |
| Influencing the boss | P2, P3 |
| Managing self | P4, P5, P8, P13, P14, P15 |
| Establishing trust | P6 |
| Establishing credibility | P7 |
| Taking care of soldiers | P10, P12 |

## Item Selection

In the next phase of inventory development, we sought to identify tacit knowledge items that were most promising for inclusion in the actual inventory (see Horvath et al., 1996). We compiled the simplified set of tacit knowledge items obtained from the interviews into a survey (Tacit Knowledge Survey; TKS). The TKS was administered to Army officers attending one of eleven U.S. Army Training and Doctrine Command (TRADOC) schools. We asked the officers to rate the "quality" of each tacit-knowledge item. Specifically, we asked officers to make the following judgments about each tacit-knowledge item: (1) how good does the respondent think the advice is, (2) how commonly known does the respondent think the advice is, (3) how often do leaders at the specific level face situations such as the one described, and (4) to what extent does the advice match the respondent's personal concept of leadership?

Based on the TKS ratings, we then sought to identify items that best discriminated between experienced and novice officers, as well as more and less effective leaders. To do so, officers were designated as experienced or novice platoon leaders based on their enrollment status in TRADOC schools and their previous experience. Officers enrolled in the Officer's Basic Courses (Quartermaster, Infantry, Transportation, Signal, Engineer, and Field Artillery) were designated as novice platoon leaders because they had not yet led platoons (at least as officers). Officers enrolled in the Officer's Advanced Courses (Infantry, Signal, Combined Logistics, Engineer, and Field Artillery) were designated as experienced platoon leaders because they have all led platoons and met with success sufficient for selection to the Advanced Course in their branch. In a separate sample from the U.S. Army Forces Command (FORSCOM), we obtained ratings of leadership effectiveness for each respondent from his or her peers and superiors (ratings were not obtained from non-commissioned subordinate officers). Tacit knowledge items that received a much higher quality rating from experienced than novice platoon leaders, and from leaders who were rated as more effective, were viewed as having the best discriminating potential. That is, they were more likely to represent knowledge that is characteristic of experienced and successful officers. These items were identified as most promising for use in the Platoon Leader Questionnaire.

## Inventory Construction

The next phase involved constructing an inventory that could be administered to platoon leaders to assess the relationship between measured tacit knowledge and measured effectiveness. To construct the inventory, we included items that best represented the categories of tacit knowledge derived in the interview study and best discriminated between experienced and novice officers and more and less effective leaders. We constructed preliminary tacit knowledge questions using the selected items and the interview summaries from which they were drawn. The selected tacit-knowledge items were expanded into a scenario that posed a leadership problem, along with a set of 5 to 15 possible responses to the scenario (see Appendix A for an example of a tacit-knowledge question). Respondents are typically asked to rate the quality of these response options for addressing the situation presented.

Once a preliminary inventory was constructed, we distributed copies of the inventory to a focus group of officers (majors and captains) assigned to the faculty and staff of the U.S. Military Academy (but external to the research team) who had served as platoon leaders. We explained to these officers the goals of our project and how we defined tacit knowledge in the context of military leadership. We then asked the members of the focus group to evaluate the "fit" of our inventory questions to the tacit-knowledge construct. We asked members questions such as "Does this question represent the type of problem that leaders learn to solve through experience?" and "Does this question tap knowledge of the sort that we have defined as 'tacit knowledge'?" We also asked focus group members to help "fill gaps" and "fix problems" in the inventories. In particular, we asked them to a) provide additional, plausible response options for any question, b) identify areas of confusion or lack of clarity, c) identify problems of gender, racial, ethnic, or "branch" bias, and d) identify anything that did not "ring true" in the inventory questions. We then revised the inventories based on the judgments and suggestions of the focus group members.

# Construct Validation

Throughout the development of the PLQ, we sought to provide support for the validity of our instrument. The goal of establishing validity is to show that an instrument in fact measures what it is intended to measure. For our purposes here, this means that the questions composing the PLQ measure tacit knowledge relevant to platoon leaders and that scores on the inventory relate to a relevant external criterion (i.e., leadership effectiveness). We first discuss the internal structure of the PLQ, including how we ensured the relevance and representativeness of the tacit knowledge items included in the inventory. We then present results from our construct validation study on the PLQ, including evidence of its reliability and the relationship between tacit knowledge and leadership effectiveness.

## Internal Structure

In developing the PLQ, we attempted to include tacit knowledge items that were both relevant to the construct of tacit knowledge and representative of the entire domain of tacit knowledge for platoon leaders. The relevance of the items was supported initially by asking

officers to talk about their personal experiences rather than leadership doctrine or theory, and later by asking a sample of experts to judge the relevance of each item to the tacit knowledge construct. With construct representativeness, the goal is to include items that are applicable to a broad sample of platoon leaders. We obtained a representative sample of items by asking experts during various stages in the inventory development to identify and remove items that were too technical or narrow in focus, or exhibited racial, ethnic, or gender bias.

Another way to insure the representativeness of the items included in our inventory is to understand the underlying structure of the tacit knowledge construct. In other words, is the tacit knowledge of platoon leaders characterized by different types, or categories, of knowledge? As a preliminary step in the development of the PLQ, we sorted the tacit knowledge items into categories reflecting the main areas of tacit knowledge relevant to platoon leaders. In constucting the inventory, we aimed to select items to represent each of these categories. In Table 2 (shown above) we show the questions included in the PLQ that are associated with each category.

In addition to these categories, we sought to identify broader themes (dimensions) reflected by the tacit-knowledge items we obtained. These themes were considered to represent the developmental challenges faced by platoon leaders and are summarized in Table 3. We later examined the extent to which these themes were characteristic of the knowledge exhibited by officers who responded to the PLQ. In our construct validation study (described in more detail below), we used a statistical technique, called principal components factor analysis, to assess the extent to which the final tacit-knowledge questions reflected the themes identified in the earlier stages of the inventory development. Based on our data (which exhibited only one factor with an eigenvalue greater than one; see Hedlund et al., 1998), we concluded that the questions composing the PLQ best represented one general dimension of tacit knowledge for platoon leaders. The larger pool of items from which these questions were drawn, however, appear to reflect multiple dimensions of tacit knowledge.

Table 3.
Dimensions of Platoon Leader Tacit Knowledge

| Dimension | Label | Explanation |
|---|---|---|
| 1 | Acquiring confidence in interpersonal skills | Learning how to motivate subordinates; overcoming individual hesitancies towards motivating more experienced soldiers |
| 2 | Defining leadership style | Understanding one's personal leadership style; knowing the type of influence to use in one-on-one situations |
| 3 | Taking a stand | Confidently demonstrating concern for the units' welfare with subordinates; being forthright when discussing the strengths and weaknesses of the unit; acting for the benefit of the unit[a] |
| 4 | Taking and fostering accountability | Identifying problems (interpersonal or technical) within the unit and proactively seeking solutions to the problem; requiring the same actions of subordinates |

[a] Judges felt that these actions may result in an attribution of selfishness.

Reliability

The initial PLQ contained 16 tacit knowledge questions, each consisting of a leadership problem and several possible responses. We administered the PLQ to 368 platoon leaders who were instructed to rate each response option separately according to how well it addressed the problem. Platoon leaders' responses were scored based on how far their ratings were, on average, from a group of designated experts who also completed the questionnaire. (This distance scoring method is described in Hedlund et al., 1998). Using this method, the closer a platoon leader's ratings were to the experts, the greater his or her tacit knowledge for military leadership.

Each question in the inventory is intended to contribute to the measurement of an officer's overall tacit knowledge for military leadership. Ideally, these questions should fit together well as a whole; that is, they should consistently measure the same concept. Tacit-knowledge inventories, however, are unique in that they consist of complex questions that measure rather specific knowledge. Officers may vary in the consistency of their responses depending on their familiarity with the situations presented in these questions. As such, we do not expect to obtain the same level of internal consistency as those found for other measures (e.g., verbal reasoning tests). We consider lower levels of reliability (values for coefficient alpha below .80 on a scale from .00 to 1.00) to be acceptable for our purposes. Using coefficient alpha to measure internal consistency, we obtained an initial reliability for the 16-item PLQ of .68.

Given the complexity and the preliminary nature of our instrument, we considered this level acceptable and proceeded to examine the data further to identify potential questions that may have affected the internal consistency of the inventory.

We identified one question (P1) that exhibited a poor "fit" with the inventory.[1] In other words, this question had a low correlation with the inventory as a whole. Military members of the research team examined the content of this question further and concluded that it was too narrow in focus, addressing the job of chemical platoon leaders. Because the tacit knowledge reflected in this question would not be representative of the experiences of most military leaders, we felt it should be removed from the inventory. After removing this question, the revised Tacit Knowledge for Military Leaders: Platoon Leader Questionnaire presented here contains 15 questions and has a reliability of .69 (see Appendix A). We have renumbered the questions to reflect this change.

Criterion-Related Validation

In the preceeding discussion, we focused on the internal structure of the inventory, describing the steps we took to ensure that the questions appropriately measured the construct of tacit knowledge. Validity is also established in reference to external criteria. In other words, the PLQ should not only provide an effective measure of tacit knowledge, it should also serve as a valid indicator of leadership performance (criterion-related validity). Our work was predicated on the expectation that leaders who possess greater tacit knowledge are more effective than those with less tacit knowledge. We also proposed that that tacit knowledge would explain leadership performance better than other potentially valid measures like general verbal ability and experience.

In order to assess the criterion-related validity of the PLQ, we administered measures of verbal ability (the Concept Mastery Test; Terman, 1950), experience, and tacit knowledge for civilian management (the Tacit Knowledge Inventory for Managers; Wagner & Sternberg, 1991) along with the PLQ to our sample of 368 platoon leaders from six posts across the U.S. A measure of verbal ability was included because general ability is commonly used as a predictor of performance in many professions. Our aim was to show that tacit knowledge could explain performance better than verbal ability. Experience, as measured by the number of months in current job, was included to show that tacit knowledge is more than just the amount of experience one has; it is what one learns from experience that matters. Tacit knowledge for managers was measured to show that tacit knowledge is domain-specific. That is, we expect that tacit knowledge for leaders should explain leadership performance better than tacit knowledge for managers. Finally, for the criterion of leadership performance, we obtained ratings of each platoon leader's overall, task, and interpersonal effectiveness from his or her company commander (superior) and fellow platoon leaders (peers). We were unable to obtain ratings from subordinates who were noncommissioned officers.

The PLQ was scored by comparing platoon leaders' responses to those of designated experts (the distance scoring method is described in Hedlund et al., 1998). We found that platoon

---

[1] Question numbers refer to the initial version of the Platoon Leader Questionnaire used in the construct validity study (see Hedlund et al., 1998).

leaders who possessed greater tacit knowledge, as indicated by high agreement with the experts' ratings, were rated as more effective by their company commanders on all three dimensions of leadership (with correlations ranging from .14 to .20). Experience and tacit knowledge for managers showed no significant relationship with perceived effectiveness. Verbal ability only exhibited a significant relationship with ratings of task-related effectiveness by company commanders. However, in the case where verbal ability correlated significantly with effectiveness ratings, tacit knowledge explained leadership effectiveness over and above verbal ability.

The results of our preliminary study to assess the validity of the PLQ are encouraging and suggest that tacit knowledge has the potential to contribute to our understanding of what it takes to be an effective leader. However, we caution potential users of the PLQ against overinterpreting these findings. The results are based on data from a limited sample of platoon leaders and do not constitute an extensive validation of our instrument. Although we found a significant relationship between tacit knowledge and ratings of effectiveness by company commanders, the relationship is modest, and we did not find the same relationship for peer ratings of leadership effectiveness. Due to the preliminary nature of these results, we do not recommend that the PLQ be used as a basis for personnel decisions or for any other comparisons between officers. But we do feel that the PLQ has much to offer as a potential leadership development tool. We discuss below some potential applications of the PLQ.

## Applications in Leader Development

Our work thus far suggests that tacit knowledge, as measured by the PLQ, plays a role in understanding leadership effectiveness. Specifically, we found that platoon leaders with higher tacit knowledge were perceived as more effective by their superior officers. This finding increases our confidence that, as a product of our work, the PLQ may be useful to leadership development and organizational learning initiatives. In this final section, we elaborate on some of the potential uses of this product, which is included as Appendix A.

### Potential Uses

The objective of our work all along has been to identify an important area for leadership development and to offer potential tools to assist in that development. Tacit-knowledge inventories are not intended, or commonly used, as a basis for employment decisions such as selection and promotion. Although our preliminary data indicate that tacit knowledge does exhibit some relationship with leadership effectiveness, it would be inappropriate to use performance on the PLQ to evaluate one's ability or potential ability to be an effective leader. The acquisition of tacit knowledge depends on the ability to learn from experience and the opportunities available to learn. A low tacit knowledge score may represent a lower level of knowledge than the experts, or it may simply indicate that an officer does not agree with the experts' tacit knowledge. We recommend that the PLQ be used as a developmental tool to share the "lessons learned" of others, to stimulate discussions, and to evaluate one's own tacit knowledge relative to the experts. We discuss some potential uses of the inventory and the data we have obtained so far (see also Horvath et al., 1998).

Identification of developmental opportunities.

The tacit-knowledge questions and the categories they represent can provide insight about the key developmental opportunities officers may face. The tacit knowledge we elicited reflected critical situations in which leaders learned something about how to be an effective leader. Officers can refer to the categories and dimensions of tacit knowledge referenced earlier (see Tables 1 and 2) to identify the major areas of leadership development. They can then consult the associated tacit-knowledge questions to learn more about the types of situations that are relevant to those categories. The scenarios may suggest particular situations that leaders should attend to in their own experiences, situations that may offer them important developmental opportunities.

Reading through the tacit knowledge questions may also give platoon leaders insight about their own experiences and what they have learned. For example, after reading about how a platoon leader dealt with an unreasonable order from his company commander, an officer may reflect back on a similar experience he or she has faced. The officer can compare how his or her response relates to the options that accompany the tacit knowledge scenario.

Classroom instruction and discussion.

The PLQ may also serve as a stimulus for classroom instruction and discussion. The tacit knowledge questions represent potentially rich sources of insight into the practical knowledge that guides action. We found that tacit knowledge was embedded in situations and stories that leaders shared about their experiences. As such tacit knowledge is conducive to case-based instruction, which is a powerful and proven way of teaching professionals. Each leadership scenario and its associated response options can be treated as a case to be reviewed and evaluated as part of a class assignment. Instructors may also be interested in acquiring the original leadership stories from the authors to examine the cases in more depth.

The scenarios included in the PLQ could be used to stimulate group discussion. For example, officers could be asked to review a scenario about taking over a platoon of war veterans and its associated response options. They could then be asked to discuss what they would do about taking over the new platoon, why they would consider certain options to be better than others, and what might be the potential effects be of choosing a particular option. The tacit knowledge categories and dimensions, as described above, can help organize the content of the tacit knowledge material and suggest areas of leadership development that deserve emphasis.

To supplement the tacit knowledge questions, instructors can also make use of the expert response data. For our construct validation study, we obtained ratings from designated experts for each question in the PLQ. Fifty students at the Command and General Staff College (CGSC) served as the expert group for the PLQ. These 50 CGSC students were promotable captains selected "below the zone" for major and attending CGSC based at least in part on their demonstrated excellence as platoon leaders. We administered the PLQ to this expert group and used their responses to create an expert profile for the inventory.

These data can be used to generate expert "rules of thumb" regarding which response options the experts viewed as more and less appropriate. Instructors could teach these "rules of thumb" directly or use them to stimulate class discussion. The latter may be a more appropriate use of the expert data since there may be disagreement about which responses are viewed as good or bad according to the experts and instructors.

The expert "rules of thumb" can be most readily seen by examining the percentage of experts who rated each response option in the following categories: bad (a rating of 1, 2, or 3), neither good nor bad (a rating of 4, 5, or 6), and good (a rating of 7, 8, or 9). Graphs showing the pattern of expert responses for each scenario are included as Appendix B. The response options are indicated on the vertical axis and the percentage of experts rating the response option as bad (shown in black), neither good nor bad (shown in gray), or good (shown in white) is indicated on the horizontal axis. The graphs are interpreted by examining the distribution of experts in each of the three response categories. A high percentage of responses in the bad category (black) shows that most of the experts considered this option to be bad. A high percentage of responses in the good category (white) means this option was considered to be a good one by most of the experts. A fairly equal percentage in all three categories indicates that the experts did not express strong agreement that the response option was bad, neither, or good. In looking at question P1, for example, it is clear that options 7, 9, and 10 were considered bad by the majority of experts, while options 1, 2 and 8 were considered good by most.

For a given scenario, an officer can refer to the graph and readily identify options that were clearly viewed as good or bad by the experts. This expert advice could be taken at face value or evaluated further to determine why the particular option may have been seen by the experts as good or bad. Officers in a leadership development course could be asked to discuss their agreement or disagreement with the experts' ratings. A valuable exercise might also involve examining the options that the experts rated in the middle, or for which the experts did not agree, and to consider why these options were rated as such. Since we do not have data regarding the experts' justification for their responses, a class activity could entail asking officers to develop potential explanations for the experts' responses. This activity would encourage officers to examine the problem more closely and to consider possible contingencies that may result in a particular response appearing more or less appropriate.

Self-assessment.

Many of the uses discussed above can also be applied to self-study. Officers can review the scenarios on their own and evaluate the expert responses. They can also gain feedback about their own tacit knowledge relative to the experts by completing the inventory and scoring their responses. Officers can answer the tacit knowledge questions by following the instructions provided. They can then refer to the scoring procedures described below to score their responses and assess their level of tacit knowledge.

Officers can evaluate their scores on a particular question, in a certain category, or on the inventory as a whole. The scores can be used for diagnostic purposes to assess how much tacit knowledge an officer has acquired compared to expert platoon leaders. An officer may identify certain areas in which he or she needs to seek out additional learning opportunities. Once again, scores on the PLQ should not be interpreted to suggest that some officers have higher ability than others.

Scoring and Interpretation

The scoring procedure for the PLQ involves comparing one's responses to those of the experts. Once again, these scores are not intended for use in comparing officers in terms of their level of tacit knowledge. In order to allow potential users to score their responses to the inventory, we have developed a simple, user-friendly scoring procedure based on the expert profile we used to score the inventory in our research. (A more precise scoring method is described in Hedlund et al. (1998) that involves computing the actual distance of each response from the expert mean. The expert data and a method for computing distance scores are available from the authors.)

The scoring procedure presented here is based on the sample of 50 CGSC students (as described above) who were designated as expert platoon leaders. Their responses to the PLQ were used to compute an expert profile consisting of a mean and standard deviation. The mean represents how the experts, on average, rated the response option on a scale from bad (1) to good (9). For example, a mean rating of 2.5 indicates that the experts, on average, felt the option was bad. A mean rating of 4.5 indicates that the experts generally considered the option to be neither good nor bad. And an 8.5 would mean the experts generally viewed the option as good. The standard deviation indicates the variability among experts in their responses (i.e., the extent to which the experts agreed that a response was good or bad). A smaller standard deviation indicates that the experts generally agreed in their ratings of a particular response option. A larger standard deviation suggests that the experts varied in their ratings.

Using this information, we can create a confidence interval around the mean. This confidence interval represents the values within which the true expert mean is likely to fall, given that our experts varied in their responses. In other words, this confidence interval takes into account the variability in the experts' responses in determining the true mean rating for the expert group. We have chosen to use a confidence interval that consists of the mean plus or minus one standard deviation. In other words, almost 70% of the expert population will fall within this interval in their ratings. This interval can be used to gauge how expert-like one's

responses are. Responses that fall within this interval can be considered in greater agreement with the experts than those that fall outside the interval.

We have developed charts for each question that present the confidence interval around the expert mean so that respondents can evaluate their agreement with the experts. Answer sheets are included as Appendix C and the charts for scoring one's responses are provided as Appendix D. The instructions accompanying the PLQ ask you to rate, on a scale from 1 to 9, how well each response option addresses the leadership situation described. The answer sheet corresponding to the question number (e.g., P1) can be used to record your ratings. The response options for each question are numbered in the order that they appear in the inventory. After answering all the options for a particular question or the entire inventory, you can refer to the scoring charts.

The scoring charts again indicate the question number (e.g., scenario P1) and the response options (in the order presented). For each answer, refer to the corresponding question and response option on the scoring chart. The response options are indicated on the vertical axis and the rating values (1 through 9) are shown on the horizontal axis. The scoring chart shows a 70% (approximate) confidence interval around the expert mean (indicated in white). Scoring your answer involves determining if your rating falls within the expert confidence interval, or the white range, for that response option. If your response is within the interval, record a "1" on the answer sheet. If your response falls outside the interval, record a "0" on the answer sheet. For example, if you rated question P1, response option 1 a "7" your answer falls within the 70% interval of the expert mean. You would receive one point and would be considered in agreement with the experts. If you rated the same question a "4" your answer falls outside this interval and you would receive a zero.

Once you have scored all your responses for a question, you can add up the points in the second column and record next to total score. To evaluate your tacit knowledge for individual questions, you can divide your total score by the number of response options. To assess your overall tacit knowledge on the PLQ, sum the total score for all 15 questions and divide by 150. This will provide you with a percentage (out of 100%) of the number of questions for which your ratings agree with those of the experts. The higher the percentage, the greater your level of tacit knowledge for military leadership. For example, if your total points are 132, your score would be .88 meaning that you agreed with the experts on 88% of your responses and thus exhibit fairly high tacit knowledge. Using the same procedures, you can also compute scores for subsets of questions such as those associated with the categories indicated in Table 2. These scores should be used only for the purposes of self-assessment, that is, to evaluate one's own level of knowledge compared to the experts.

## REFERENCES


Department of the Army, (1994). Leader Development for America's Army (Pamphlet No. 350-58). Washington, D.C.: Headquarters, Department of the Army.

Hedlund, J., Horvath, J. A., Forsythe, G. B., Snook, S., Williams, W. M., Bullis, R.C., Dennis, M., and Sternberg, R. J., (1998). Tacit knowledge in military leadership: Evidence of construct validity (Tech. Rep. No. 1080). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Horvath, J. A., Forsythe, G. B., Sweeney, P. J., McNally, J. A., Wattendorf, J., Williams, W. M., and Sternberg, R. J., (1994). Tacit knowledge in military leadership: Evidence from officer interviews (Tech. Rep. No. 1018). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Horvath, J. A., Hedlund, J., Snook, S., Forsythe, G. B., and Sternberg, R. J., (1998). Tacit knowledge in military leadership: Some research products and their applications to leadership development (Tech. Rep. No. 1081). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Horvath, J. A., Sternberg, R. J., Forsythe, G. B., Sweeney, P. J., Bullis, R. C., Williams, W. M., and Dennis, M. (1996). Tacit knowledge in military leadership: Supporting instrument development. (Tech. Rep. No. 1042). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Horvath, J. A., Williams, W. M., Forsythe, G. B., Sweeney, P. J., Sternberg, R. J., McNally, J. A., and Wattendorf, J. (1994). Tacit knowledge in military leadership: A review of the literature (Tech. Rep. No. 1017). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Sternberg, R. J., Wagner, R. K., Williams, W. M., & Horvath, J. A. (1995). Testing common sense. American Psychologist, 50 (11), 912-927.

Terman, L.M. (1950). Concept Mastery Test. New York: The Psychological Corporation.

Wagner, R.K., & Sternberg, R.J. (1991). Tacit Knowledge Inventory for Managers. San Antonio, TX: The Psychological Corporation.

# APPENDIX A

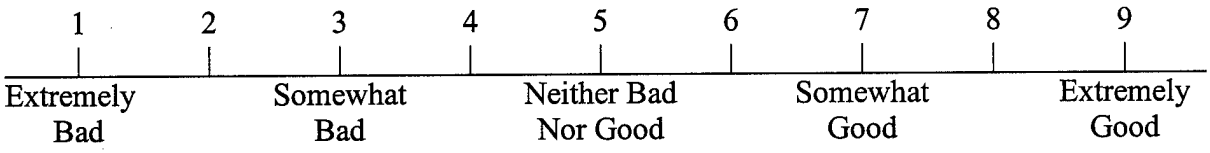
# TACIT KNOWLEDGE FOR MILITARY LEADERS: PLATOON LEADER QUESTIONNAIRE

TACIT KNOWLEDGE FOR MILITARY LEADERS:
PLATOON LEADER QUESTIONNAIRE

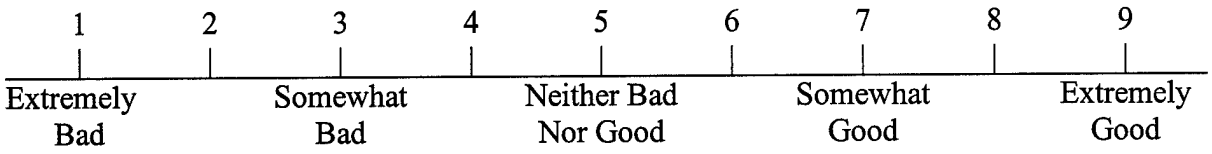
OVERVIEW AND INSTRUCTIONS

This survey was developed as part of the Tacit Knowledge in Military Leadership project to measure the practical, action-oriented knowledge that Army leaders acquire on the job. The project's main objectives were to identify the important lessons of experience that enable officers to be effective leaders and to use that knowledge to enhance leadership development.

This survey consists of descriptions of typical situations encountered by military leaders. After each situation, there are several options for how to handle the situation. For each option listed, you are to rate the quality of the option on the following 1-to-9 scale:




Select the number corresponding to your answer, and write it in the blank preceding the option (or on the answer sheet provided). Remember that some or all of the options listed for a particular question may be good, some or all of the options may be bad, or some or all of the options may be neutral (neither bad nor good). There is no one "right answer," and in fact there may be no "right answers." The options are simply things an officer at this level might do in the situation described. Please rate each individual option for its quality in achieving the goal or solving the problem described in the question. Do not try to "spread out your ratings" just for the sake of doing so. If you think all of the options are good, bad, or whatever, rate them accordingly. DO NOT BE CONCERNED if the numbers are all 9s, all 5s, all 1s, one 9 and the rest 1s, or any other mix. Your answers should reflect your opinions about the quality of the options.




P1. You are a new platoon leader. The battalion you support is preparing to conduct a night move. You assemble your platoon and tell everyone to start packing equipment in preparation for the move that same night. When you come back to inspect their movement preparation, you find that your soldiers have not packed the equipment and are talking to personnel from other platoons, who are hanging around the area. What should you do?

_____ Order the soldiers from other platoons to leave the area.

_____ Take charge of the situation, get your unit moving, then talk to the NCOs to bring the chain of command online.

_____ Tell the soldiers exactly what you want done and when you will return to reinspect.

_____ Assemble your entire platoon and tell them that their work priorities are not on target.

_____ Remind soldiers of the time urgency and the need to get many things done quickly in preparation for the night move.

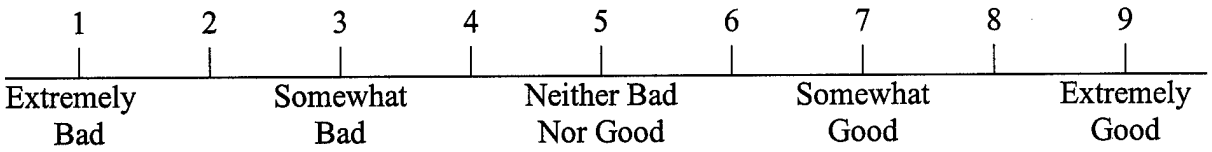
_____ Use verbal leadership and commands to influence your soldiers.

_____ Wait and see if the soldiers do the task later on their own.

_____ Assemble your squad leaders and talk about the situation.

_____ Speak to the soldiers in a friendly manner without emphasizing your authority as their leader.

_____ Warn the platoon sergeant that you will consider using punishment (such as an Article 15) if the platoon does not pull things together immediately.




P2. You are a platoon leader, and your unit is training at the National Training Center. Your battery commander makes your howitzer sections dig individual positions every time you stop, even in the offense. The other batteries do not dig in as much as you do. The Observer Controllers (OCs) tell you that your sections dig good positions, but they question why you do this so much in the offense. The battery commander's order is making a big problem for you because your sections are under-strength, and digging in so much burns everyone out and has a bad effect on morale. What should you do?

_____ Explain your view to the battery commander by talking in terms of Mission-Enemy-Terrain-Troops-and-Time (METT-T) and the effect of the decision on the unit's mission.

_____ Tell the battery commander that his directive adversely impacts the unit's morale.

_____ Go to the battery commander alone and ask him why he issued the directive.

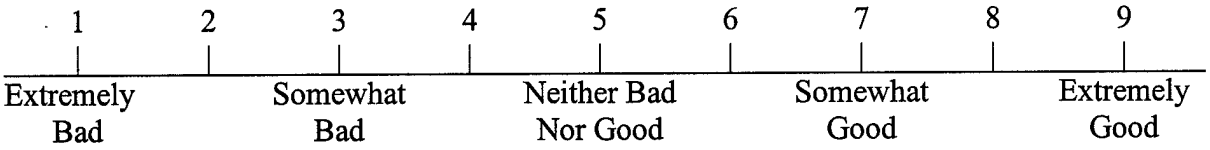
_____ Try to figure out on your own why the battery commander issued the directive and explain it to your soldiers.

_____ Speak to the company first sergeant for advice and assistance.

_____ Enlist the support of one or two other platoon leaders and go together to speak to the battery commander.

_____ Based on the position of your troops, make a decision not to comply with the commander's directive on the basis of "mission first," then explain your actions after the fact.

_____ Get together with the other platoon leaders and agree on a common position, get the support of senior NCOs, and then go as a group and together state your case to the battery commander.




P3. You have spent two months working with your new battery commander. In his last position as the Fire Support Officer for an infantry battalion he supervised a shorthanded team. Consequently, he was required to perform many duties himself. Your commander still tries to stay involved in all of the day-to-day details of running the unit, and he generally delegates tasks less often than you would like. You believe that your commander is overburdened, and you are worried about the consequences of his time-management techniques. What should you do?

_____ If you know that the battery commander intends to give someone a task, speak to that person before the battery commander does, so that he or she has already started the task before the battery commander meets with him or her.

_____ Wait to take action on specific things until after he mentions them to you.

_____ Help your battery commander to better manage his time in any way you can.

_____ Don't wait to be told what to do--anticipate what needs to be done, and if you are capable, do it.

_____ If something needs to be done but you can't do it, find someone else who can and get him/her involved--without being asked by the battery commander.

_____ Offer to take care of specific tasks before he mentions them to you.

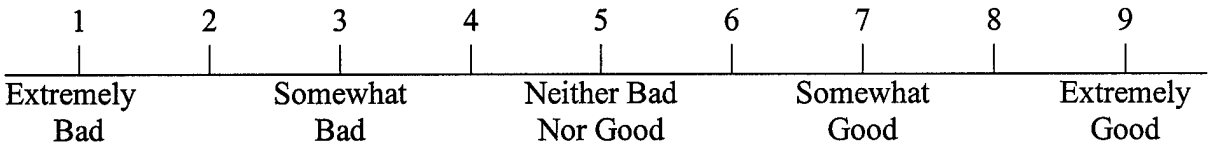
_____ When he returns from command and staff meetings, meet with him right away by yourself and write down everything that has to be done.

_____ Rely on the NCO chain of command; deal with the appropriate NCO and get NCO support.

_____ Go to the first sergeant and/or executive officer and ask for suggestions about what to do about the commander's management style.

_____ Ask the battery commander often what you can do to help and to relieve his task burden.

_____ Assume this is just the way he is and do your best to get along.




P4. During the live fire attack at the National Training Center, your tank platoon is in an overwatch position, as part of the observation post (OP) plan. You are supposed to wait to be called forward into the attack. From your position, you watch the artillery come in on the enemy positions. The smoke from the artillery obscures the enemy's view. At this point, you should move out--you should call your commanding officer and tell him you are moving while the enemy is blinded. Instead, you wait to be told to move out, as the OP plan called for. Consequently, you move after the smoke lifts, and you lose three tanks, including your own. You are angry with yourself and ashamed; you believe you should have known better. How should you deal with this situation?

_____ Think about this negative performance feedback from the NTC as a way to identify and repair your weaknesses.

_____ Try to understand other people's roles in the decision, if any.

_____ During the After Action Review, admit to your soldiers that you made a mistake; take responsibility for what happened.

_____ Reflect on the decision and determine what you should have done, in order to derive the lessons learned.

_____ Remind yourself that you will do better on the next mission.

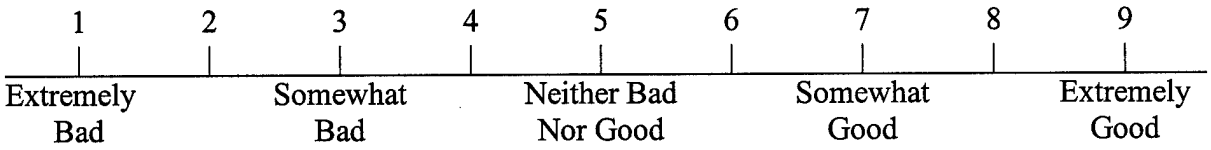
_____ During the After Action Review, describe your mistake to your subordinate leaders in order to develop and train them.

_____ Put the decision behind you; try not to dwell on it.

_____ During the After Action Review, try to explain the reasons for your decision to your soldiers.

_____ Don't let the soldiers get down on themselves because of your decision--build up their confidence and encourage them.

_____ Discuss the issue with your company commander and convince your company commander to allow you the freedom to exercise initiative at certain times, like this one.




P5. You are a platoon leader, and one day your driver has a motivational problem while out in the field. He starts mouthing off to you while standing on top of the turret in front of the rest of the platoon. Everyone in the platoon is listening to what he's saying about you, and it is extremely negative and harsh. What should you do?

_____ In front of the platoon, order your driver to do an unpleasant task as punishment for his insubordination.

_____ Pull him aside and read him his rights: really chew his butt.

_____ Go to the PSG and tell him to take care of this problem.

_____ Order your driver to be quiet and get back to his job.

_____ Pull him aside and tell him to come speak to you in one hour.

_____ Answer your driver back immediately and defend yourself by arguing your position.

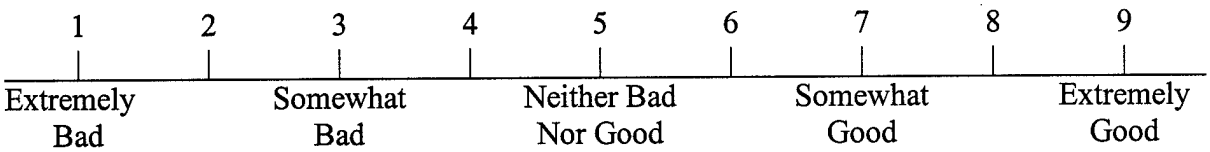
_____ Tell your driver you are recommending him for an Article 15.

_____ Do nothing; walk away and wait for your driver to blow off steam.

_____ Speak to your company commander about the problem and get his/her advice.

_____ Speak to another platoon leader and get his/her advice.

_____ Pull him aside, talk to him in private, and ask what's wrong.




P6. Your battery commander makes a decision you do not agree with. You try speaking with him and stating your position as effectively as you can, but his mind is made up and he is not going to change his position. Other platoon leaders agree with you that the battery commander's decision is wrong. What should you do?

_____ Use the first sergeant or executive officer as a voice-piece for your ideas: Convince one of them to state your opinions to the battery commander.

_____ Speak to the battalion commander and ask for advice.

_____ Tell only your NCOs that you support the battery commander's decision.

_____ Tell your platoon that you support the battery commander's decision, and they must implement it.

_____ Tell only your NCOs that you do not support the battery commander's decision, but ask for their help in implementing the decision anyway.

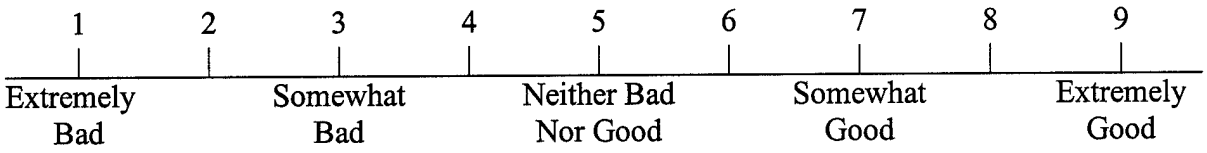
_____ Tell the NCOs that you do not support the battery commander's decision, and ask for their opinions and advice on how to handle the situation with the troops.

_____ Tell your platoon that you do not support the battery commander's decision, but ask for their cooperation in implementing the decision anyway .

_____ Formulate the best possible argument that you can in support of the battery commander's decision, and then explain the decision to the platoon while asking for their support.

_____ Go back to the battery commander and tell him/her that because you do not agree with the decision, it will be very hard for you to gain the support of the NCOs and troops to carry out the battery commander's wishes.

_____ Wait an hour after the meeting, then approach the battery commander with an alternative solution.




P7. You are a new platoon leader who takes charge of your platoon when they return from a lengthy combat deployment. All members of the platoon are war veterans, but you did not serve in the conflict. In addition, you failed to graduate from Ranger School. You are concerned about building credibility with your soldiers. What should you do?

_____ Do not change procedures that work.

_____ Ask the members of the platoon to share their combat experience: Ask what they learned and how it can help the platoon.

_____ Work hard to get into excellent physical shape so that you excel in PT .

_____ Maintain good military bearing by wearing a pressed uniform, shined boots, and having good posture.

_____ Speak to your soldiers with a tone of voice that conveys respect for them.

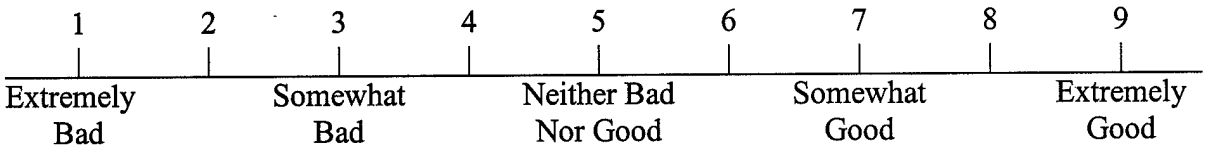
_____ Study field manuals and military history in order to gain technical and tactical competence.

_____ Defer to soldiers on matters related to their combat experience, thus acknowledging that they know more than you do in some areas.

_____ Tell your NCOs about all of the studying you have done to increase your competence.

_____ Listen frequently to your soldiers; hear their views, opinions, comments, and suggestions.

_____ Announce right up front that you are in charge and the soldiers must accept this fact and treat you with appropriate respect.




P8. You are a new platoon leader, and you are under a great deal of stress. Everyone is expecting a lot of you, and there never seem to be enough hours in the day to accomplish everything. There is a lot of competition for key awards and positions in the future, and other officers are working as hard as you are. At home, your family also needs your time and attention. How should you manage your stress?

_____ Find a trustworthy military person or confidant (not your rater) to talk to about your frustrations and problems—someone who will provide you with positive feedback about your performance.

_____ Ask a senior military leader whom you respect for specific advice and suggestions.

_____ Find a trustworthy military person or confidant (not your rater) to talk to about your frustrations and problems--someone who will provide you with honest feedback about your performance.

_____ Try not to take problems home from work.

_____ If tempted to take work home, ask yourself whether it is really critical, or whether I can wait until tomorrow.

_____ Find a trustworthy military person to talk to who will give you positive reinforcement.

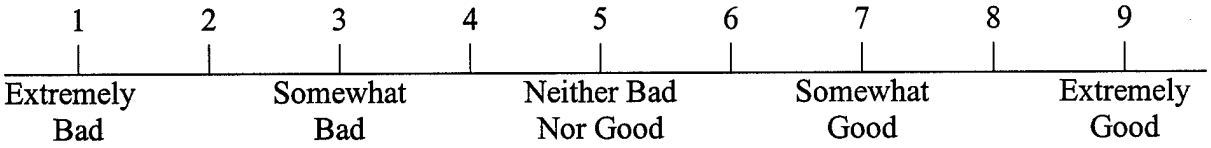
_____ Put your problems in perspective by reflecting on people who are worse off then you are.

_____ Remind yourself of your long-term goals--five or more years out--and look for relationships between the current situations and your long-term goals.

_____ Take up a hobby of interest to you and do it even though you are tired.

_____ Remember to place your career in perspective by focusing on the many aspects of your life that matter in addition to your unit.

_____ Speak to your commander about your stress, frustrations, and problems, and request her/his advice.




P9. You are an engineer platoon leader training with your soldiers. One squad is given the mission to put in a minefield for the Infantry battalion. You pick the second squad because they are good soldiers, have better equipment, and are better trained to do the job. But the squad is exhausted and the soldiers really complain. They note that it is nearing the end of the exercise and they are very tired. You tell them what you want done and you make the standards clear. When you return to check, the minefield is not up to standard and the squad is sitting around eating. You talk to the squad leader, and point out that the minefield is not up to standard. He tells you in front of the squad that the squad is not interested in your standards and that what they have done is the best you are going to get. What should you do?

_____ Relieve the squad leader, put a team leader in charge, and provide him with your guidance to complete the task.

_____ Recognize that the soldiers have reached their limit and tell them you recognize this and will take steps to ensure they are not pushed too far in the future.

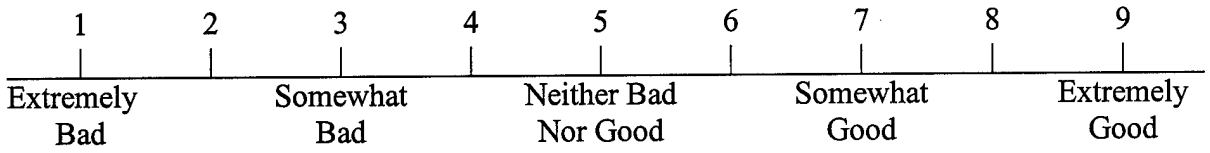
_____ Try to convince the squad leader and soldiers that you will not give them another mission until they have had a chance to rest, but that they must bring the minefield up to standard.

_____ Assume that the soldiers are overworked and let them off the hook this time--do not make them complete the task.

_____ Punish the squad leader by recommending him for an Article 15 for mouthing off to you about the soldiers not caring about your standards.

_____ Order the soldiers to stop eating immediately and complete the task, and threaten punishment if they do not comply.

_____ Say that you recognize they are tired, but tell the soldiers that the task must be completed, and ask what assistance you can arrange for to help them get the task done.




P10. You are a platoon leader, and your battalion requires the company to turn in training schedules six weeks in advance. But the battalion does not give you six weeks notice on requirements. Thus, there are a lot of changes to the training schedule. The battalion tells you six weeks out is too far in the future to assign projects, yet they expect you to plan training six weeks out! The soldiers think that these changes in the schedule jerk them around and sometimes cause morale problems. What should you do?

_____ Tell your soldiers to stop griping and worrying about the changes in the schedule-remind them that they always prepare their classes the night before anyway.

_____ Let the soldiers know the changes to the schedule are not your fault, and that you appreciate their need to be able to plan.

_____ Buffer the platoon from changes that take place higher up by filtering the information you give them about these changes--provide soldiers with as much stability and predictability as possible.

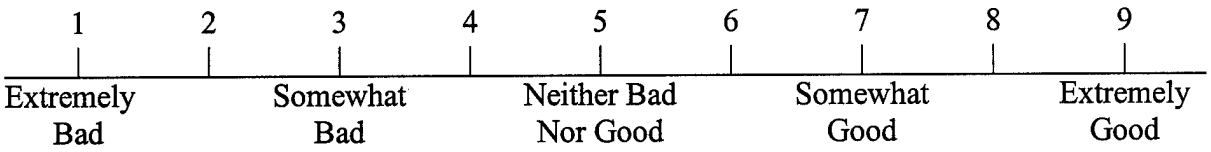
_____ Submit all required paperwork to change the schedule to the battalion, but for your own platoon, publish a special calendar that is more short term but is always accurate.

_____ Tell your platoon to ignore the training schedule, since it changes so much.

_____ Speak to your company commander about the disruptions caused by the changes in the schedule, and solicit his advice and assistance.

_____ Let the soldiers know that you agree with them that sometimes it seems that the battalion and company don't know what they are doing.

_____ Don't publish your own short-term schedule because then soldiers will think with too short-term a focus and won't take the necessary time to prepare for classes, etc.




P11. Your platoon has been working on building a range for 17 months. The assignment has been unpleasant. One reason for this is that the range site is more than an hour's drive away from the Army post. Suddenly, you are told that your platoon has to finish the project in the next three weeks. This will mean that you will have to stay out at the range and work nights, all in the summer heat of Georgia. What should you do to keep your soldiers motivated?

_____ Tell the soldiers what to expect so they can plan ahead, even when you know the work will be unpleasant.

_____ Expose yourself to many of the same hardships as your soldiers by spending time with them in the hot sun, staying with them even when it is unpleasant, etc.

_____ Focus your efforts on providing for their basic needs--get them hot meals, weekends off, and ice in the field, for example.

_____ Do everything you can to get public recognition for your soldiers when the task is complete and they are back at the base--make sure everyone knows how hard they worked.

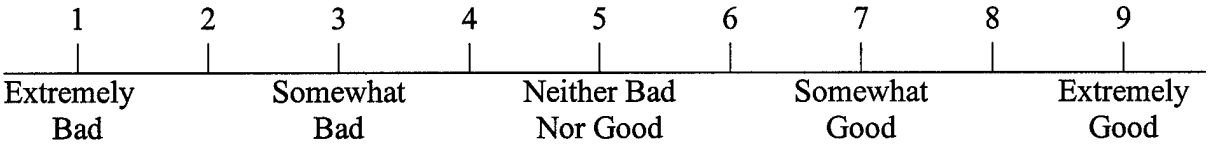
_____ Speak to your company commander and try to arrange for a more pleasant assignment to follow this unpleasant one, and then let your soldiers know what is to come to give them something to look forward to.

_____ Reward the soldiers for good work; let them know they are appreciated.

_____ Find out why the project is important, and then communicate these points to your soldiers to show them why their effort is meaningful.

_____ Give the soldiers a reward to look forward to, such as extra time off when the project is complete.

_____ Empathize with the soldiers' situation and allow them to take steps to make themselves more comfortable, such as modifying their uniform.




P12. You are a platoon leader, and you receive a new private. On his second day in your platoon, he says that he wants to kill himself. You refer the soldier to the Medical Health Center and the Chaplain. Soon after, you learn that the medical center has not assigned a person with relevant professional training to help the soldier. The Chaplain is not having much effect because the soldier is not religious. In general, you have doubts about the qualifications of the people assigned to help him. You are very concerned about this situation. What should you do?

_____ On your own, confer with the mental health officials and ask their opinion.

_____ Every time you speak with the soldier, make sure a witness is present to protect yourself from later misinterpretations or allegations about what was said.

_____ Once the situation de-escalates, take the soldier on an extended training exercise where he can meet and establish friendships with fellow soldiers.

_____ Ask the members of the platoon to help the new soldier by not making fun of him and by working together to keep an eye on him--let them know that they can make a big difference if they help out.

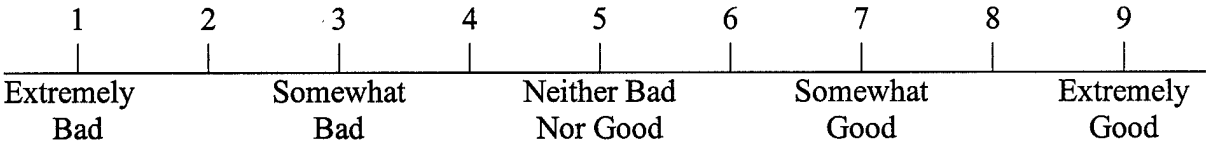
_____ Speak with your commanding officers, inform them of the situation, and ask their opinion.

_____ Call the soldier's parents and ask for their advice and assistance.

_____ Put your concerns and a list of the actions you have taken in writing to your commanding officer in order to protect yourself.

_____ Take immediate action yourself by sitting down and talking with the soldier and giving him 24 hours to decide if he wants to stay in the Army.

_____ Tell the private that he has to pull his weight and do his job.




P13. You are a new second lieutenant. Due to numerous inactivations you have been assigned to the battalion staff until a platoon becomes available. You are somewhat intimidated about working with people who outrank you by such an extent--your direct boss is the battalion executive officer. However, as an officer, you know you have a job to do. Rate the quality of the following strategies for establishing yourself as an effective officer in your new position:

_____ Do not try to act like you know it all.

_____ Be assertive; do not be afraid of using your rank.

_____ Do not worry about upsetting people, even higher ranking officers, when you are doing your duty.

_____ Be careful not to use words or say things that might offend people who outrank you.

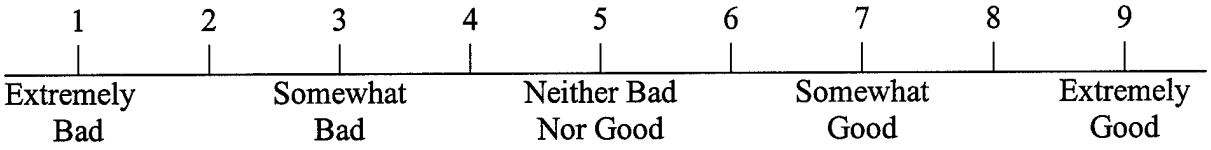
_____ Check with other lieutenants or captains and hear their opinions and get their input on an issue before taking the issue to the boss.

_____ Be respectful when you speak to officers who outrank you.

_____ Approach competent officers directly, and ask frequently for their advice and help.

_____ Find out who the competent officers are by reputation, then seek out these individuals and use them as mentors and sources of advice.

_____ Concentrate on the facts you are trying to communicate when you speak to high-ranking officers--present the facts accurately and do not change what you are saying to avoid upsetting higher-ranking officers.




P14. You and your company commander don't talk about your performance very often. When you do, he usually blows up and chews you out, but never explains what you did wrong. In fact, you rarely know exactly what your company commander thinks of you or what he expects. He generally just tells you what he wants, and that's it: He never communicates with you concerning your overall performance or development. What should you do in a situation with this type of company commander?

_____ Have a friendly competition with the other platoon leaders in order to set goals and judge your progress.

_____ Speak to another company commander about your problem and ask for his advice.

_____ Avoid talking to other officers about your complaints about your company commander--figure things out for yourself as best you can.

_____ Try to learn by talking with others about the boss's likes and dislikes, in order to understand his style and expectations.

_____ Use your fellow lieutenants as a feedback group to determine how your performance compares with that of your peers.

_____ Ask the first sergeant if your subordinates are having problems with the company commander, so that you can counsel them.

_____ Accept the fact that this is just the way your company commander is, and drive on.

_____ Ask the XO or senior lieutenant questions about the boss's opinion of you as a way of getting more information.

_____ Recognize that cooperation among the lieutenants in a company is key to the success of a platoon leader, and make sure that you cooperate with the other platoon leaders.

_____ Use your fellow lieutenants as a social support group to determine if your experiences with the company commander are normal.

_____ Assume that when your boss is not chewing you out, it basically means that he is satisfied.

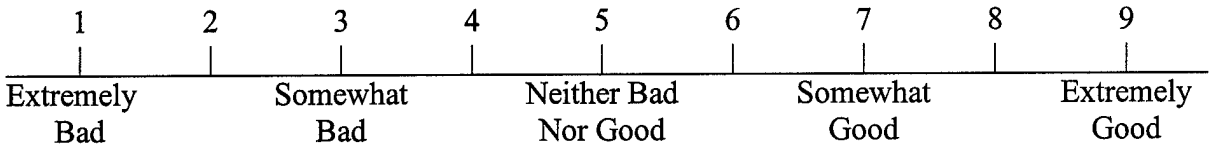
_____ Use your fellow lieutenants as a social support structure to vent your feelings and reduce your stress.

P14, continued

_____ Approach your company commander, explain that your goal is to do and be your best, and tactfully ask him for detailed performance feedback and developmental counseling.

_____ Speak to platoon leaders in other companies about your performance and frustrations.

_____ Ask the first sergeant what the company commander says about you behind your back.




P15. You are a medical service platoon leader, and you have been in the unit for several months. You have frequently seen your peers yelling at soldiers when the soldiers make a mistake. You do the same thing when one of your squads does not follow the platoon's standardized load plan--and you really lose control. You believe you were out of line, and you did not achieve the desired results. You also believe that yelling at people is demeaning and wrong. What should you do now?

_____ Recognize that it is not appropriate to scream at people, and that there are other, more effective ways to handle situations.

_____ Think about how your superior officers' anger has or would affect you--try to put yourself in the shoes of the sergeant and the other soldiers.

_____ Apologize with sincerity to the squad.

_____ Write a note to yourself on your camouflage notebook that says "Control My Temper," in order to remind you to stay in control.

_____ Ask yourself how other effective leaders at your level would have handled the situation, and make plans to modify your behavior accordingly in the future.

_____ Speak to the chaplain or a counselor about how you might better control your temper.

_____ Next time you are about to lose your temper, practice a technique like counting to ten several times to delay and hopefully stifle your outburst.

_____ Sit down with your soldiers and explain why you felt so strongly about the ambulances' standardization; try to make them see why you felt this was worth yelling about.

_____ Take deliberate action to reward soldier initiatives in the future to encourage them to be more forward.

_____ Ask your company commander for ideas about how you should have handled the situation.

_____ Accept that even though you may not like to do it, being in the Army sometimes means yelling at others.

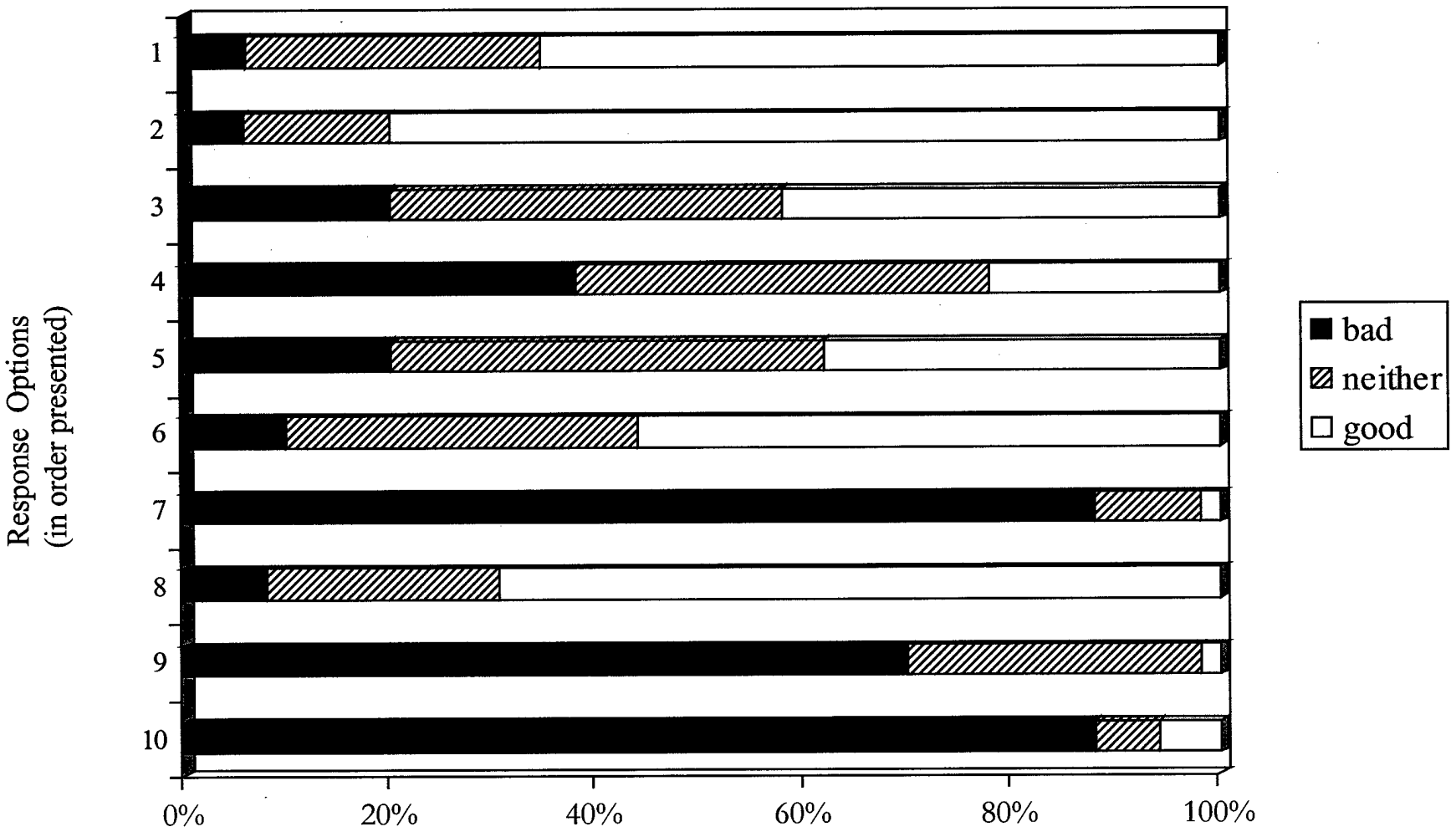
P15, continued

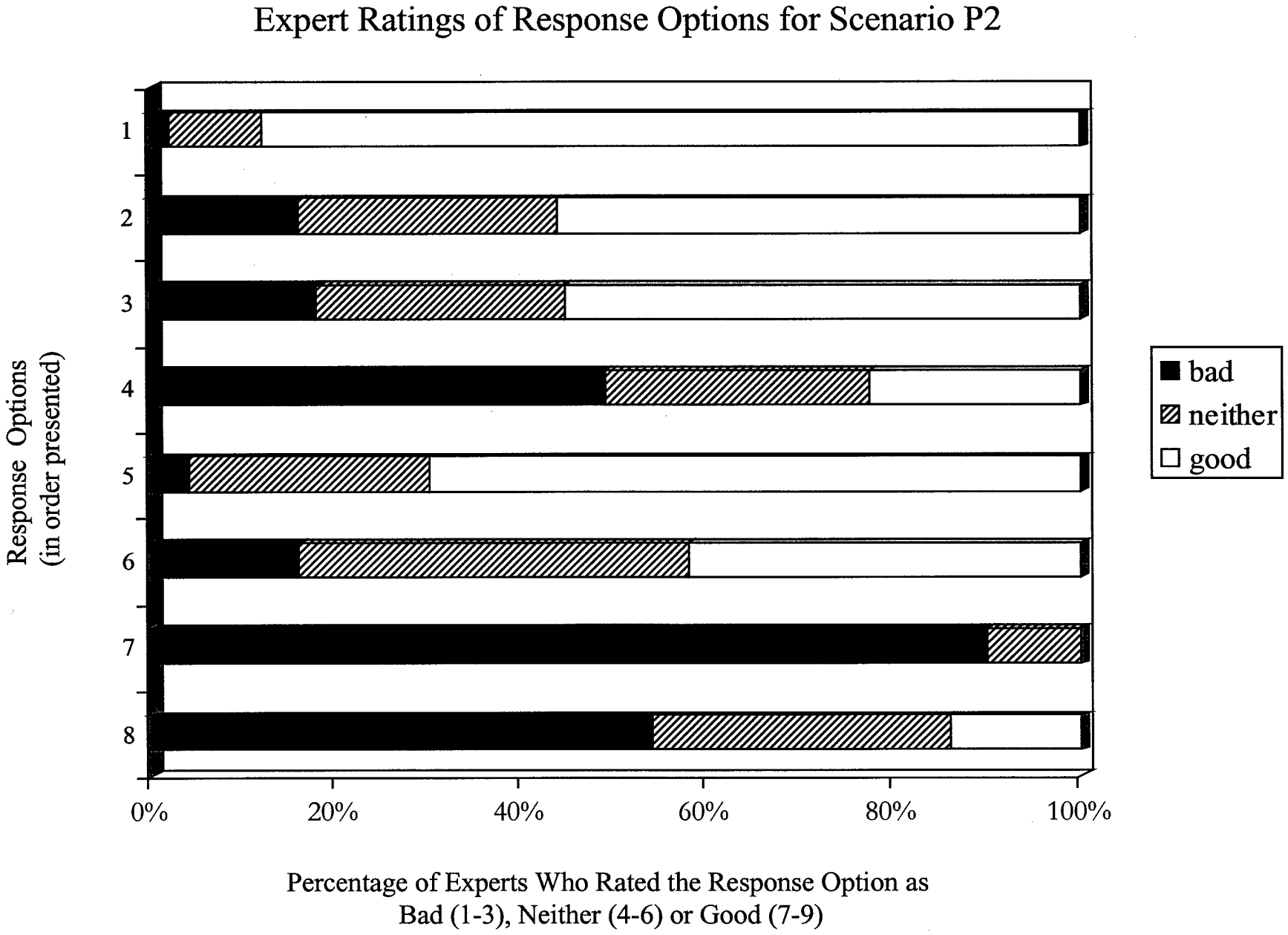
_____ Ask other platoon leaders whom you admire for their advice about handling similar situations in the future.

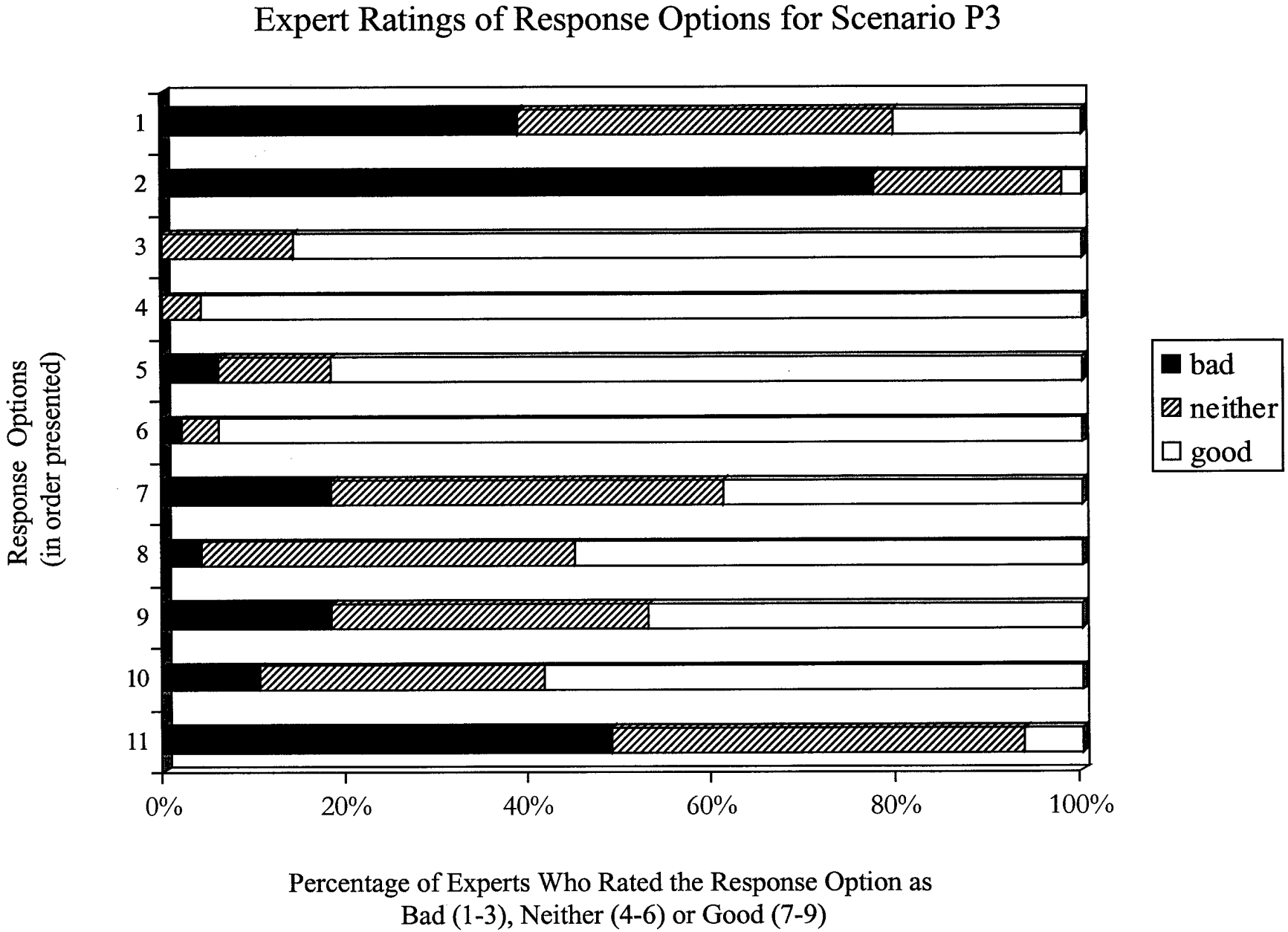
# APPENDIX B

## EXPERT RATINGS FOR PLATOON LEADER QUESTIONNAIRE

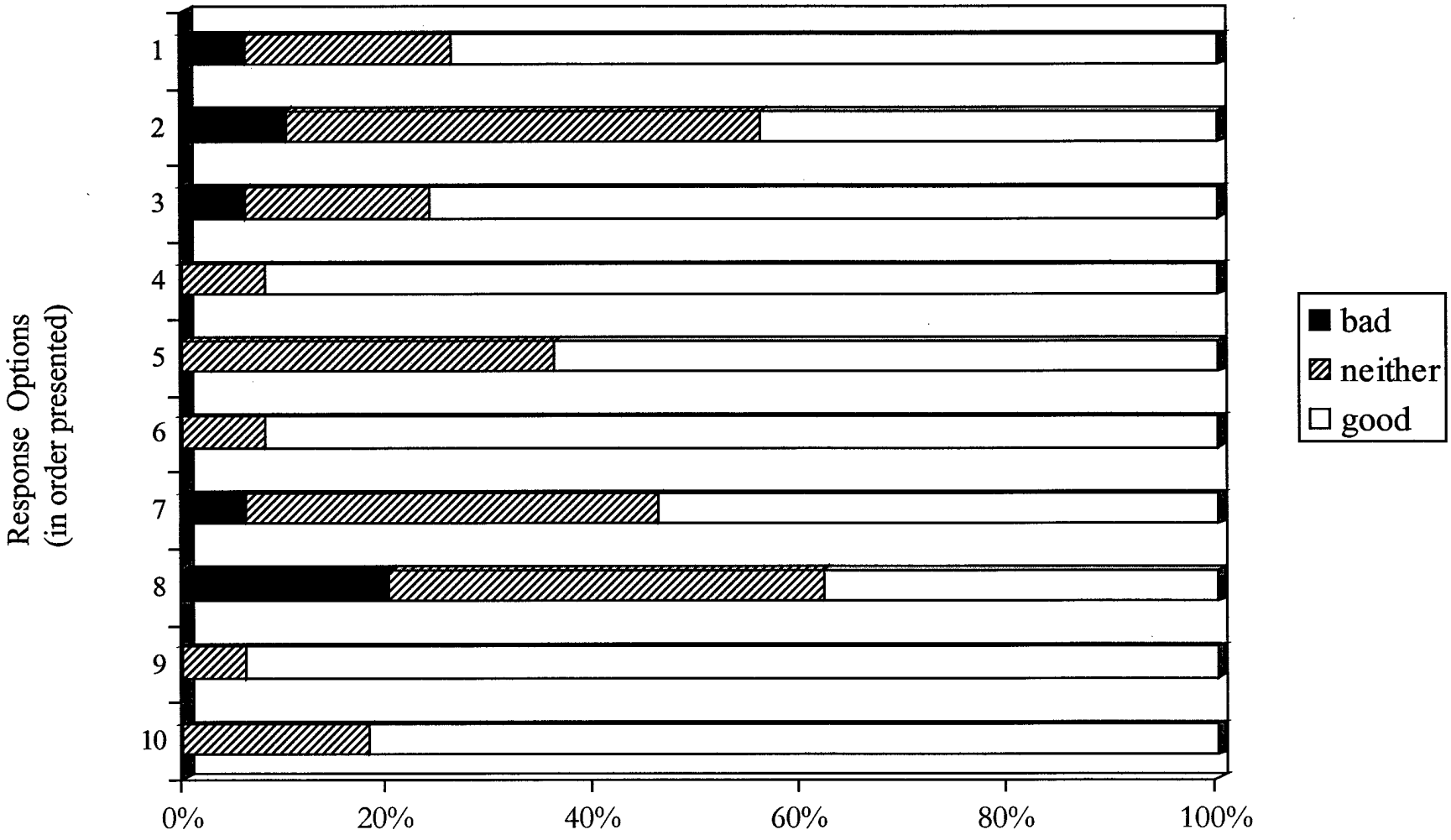
# Expert Ratings of Response Options for Scenario P1



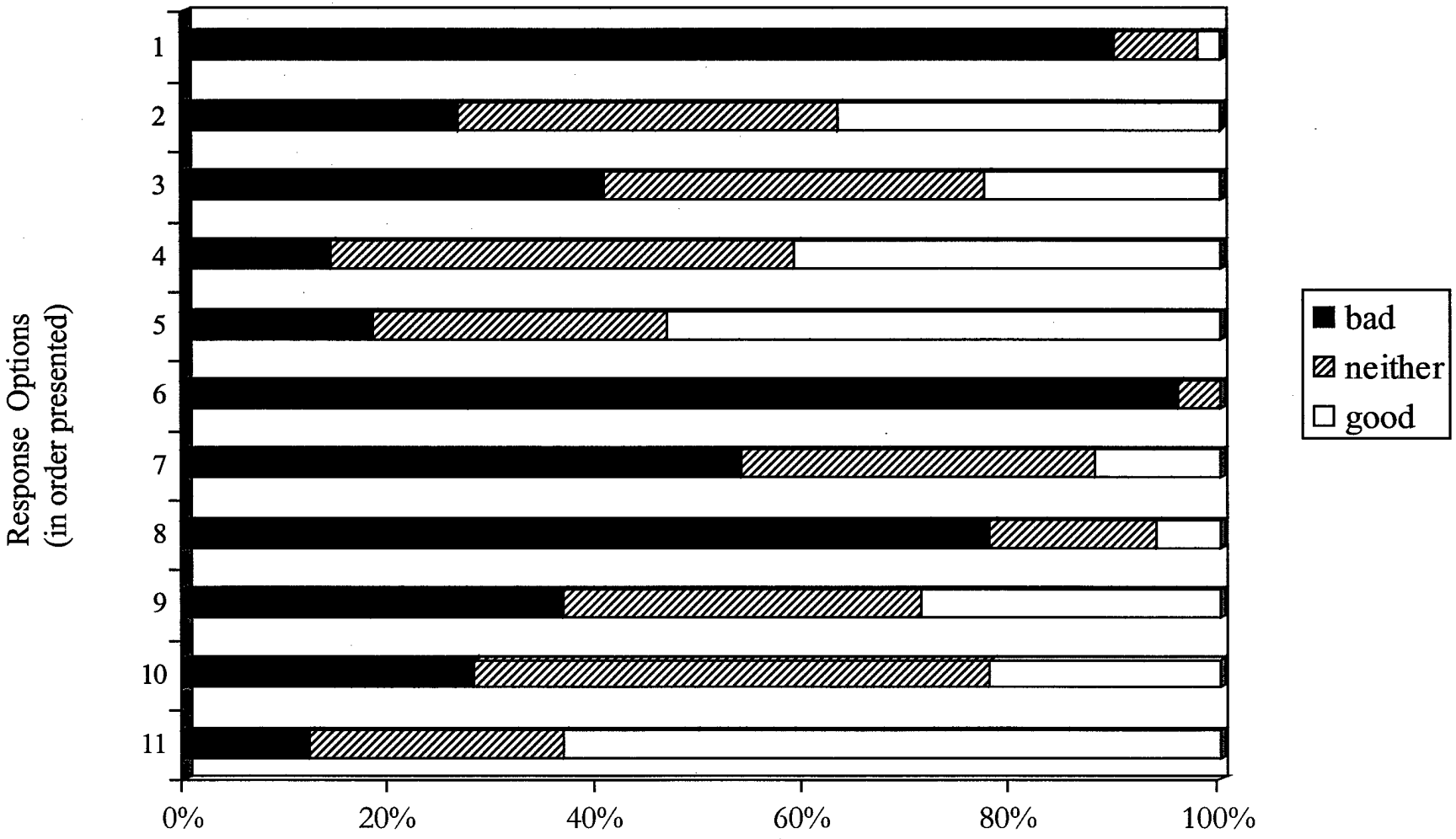

Expert Ratings of Response Options for Scenario P2
Response Options
(in order presented)
1
2
3
4
5
6
7
8
0%
20%
40%
60%
80%
100%
bad
neither
good
Percentage of Experts Who Rated the Response Option as
Bad (1-3), Neither (4-6) or Good (7-9)


Expert Ratings of Response Options for Scenario P3
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
11
0%
20%
40%
60%
80%
100%
bad
neither
good
Percentage of Experts Who Rated the Response Option as
Bad (1-3), Neither (4-6) or Good (7-9)

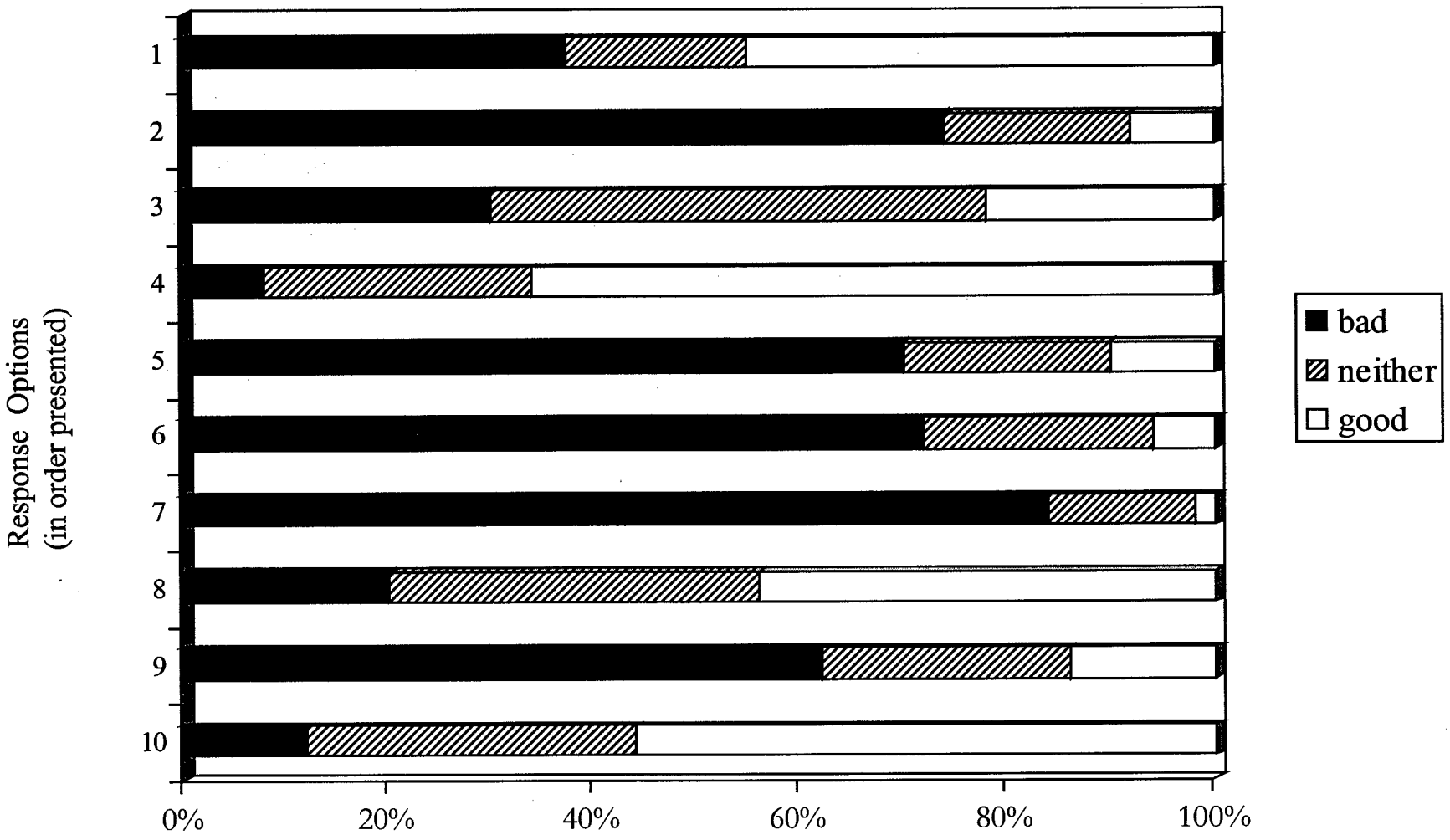
## Expert Ratings of Response Options for Scenario P4



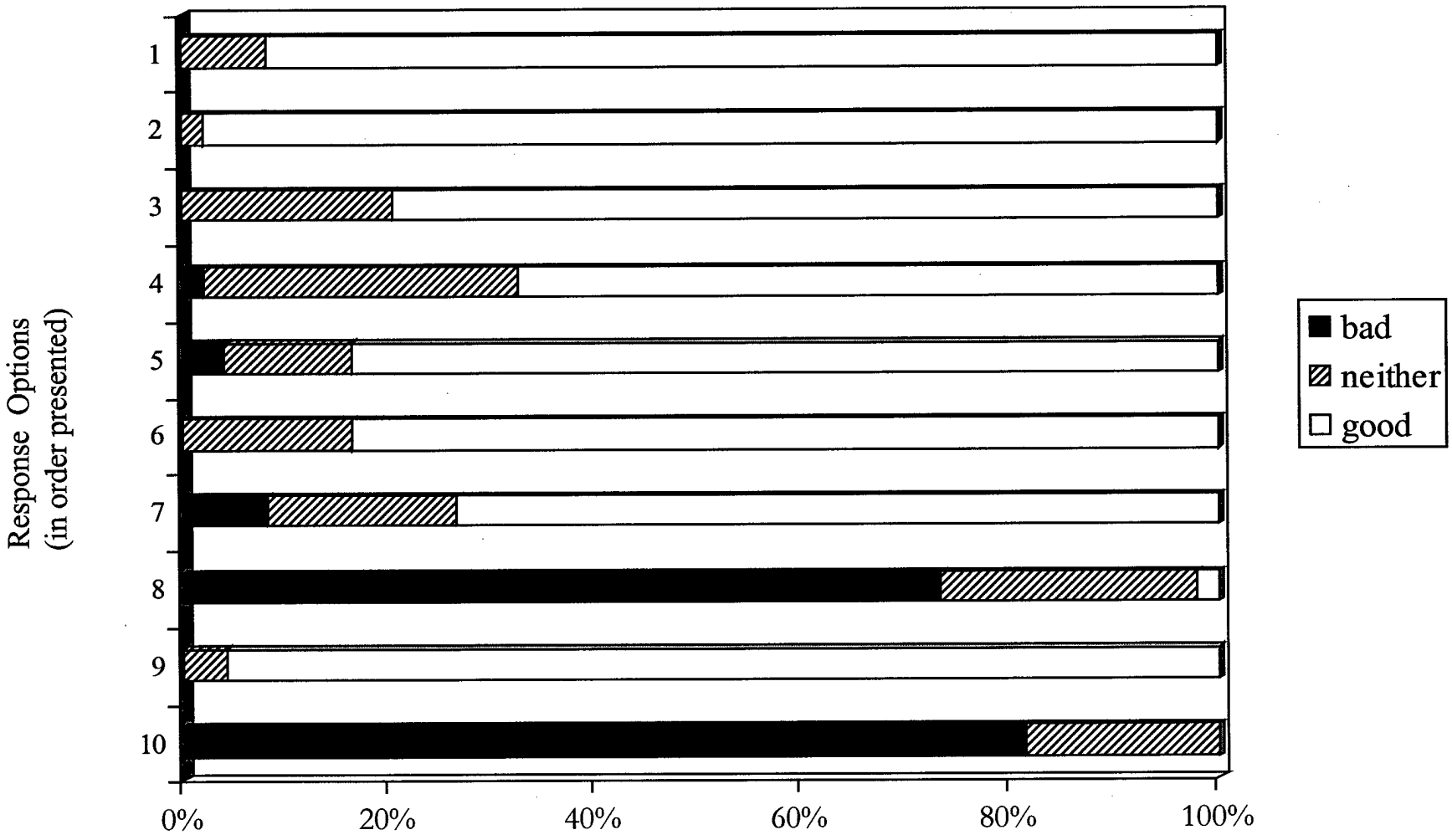
# Expert Ratings of Response Options for Scenario P5



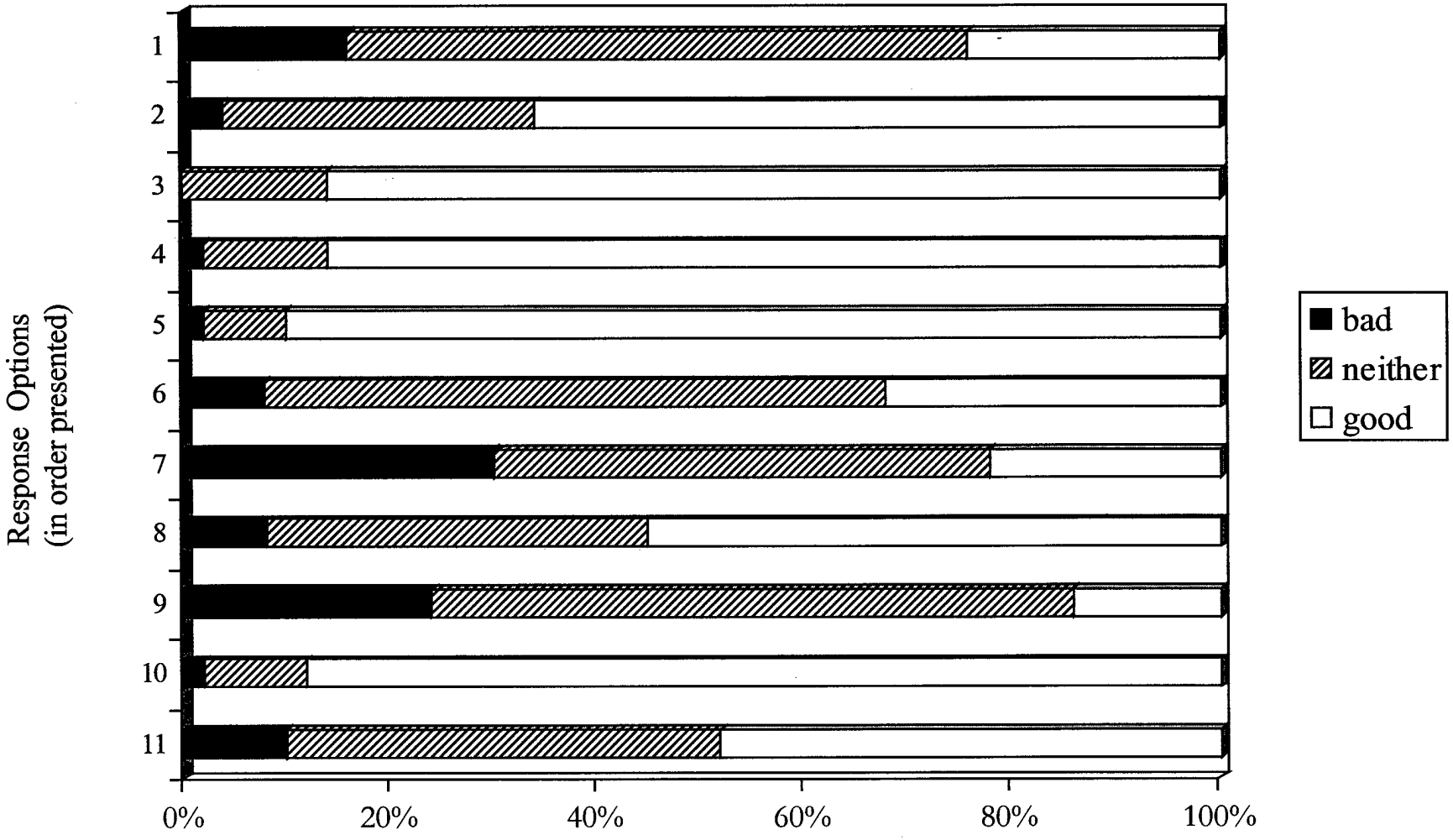
## Expert Ratings of Response Options for Scenario P6



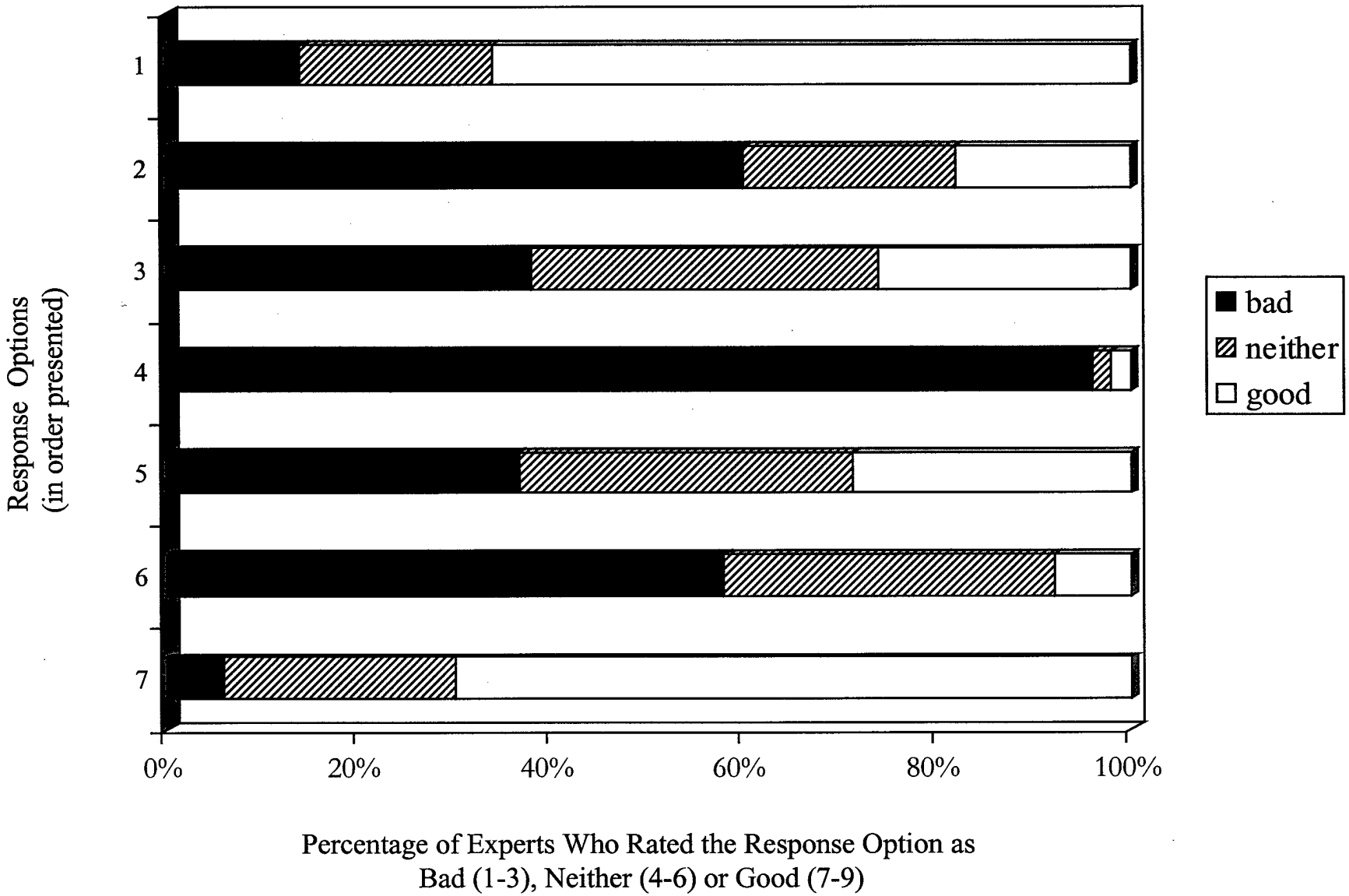
## Expert Ratings of Response Options for Scenario P7



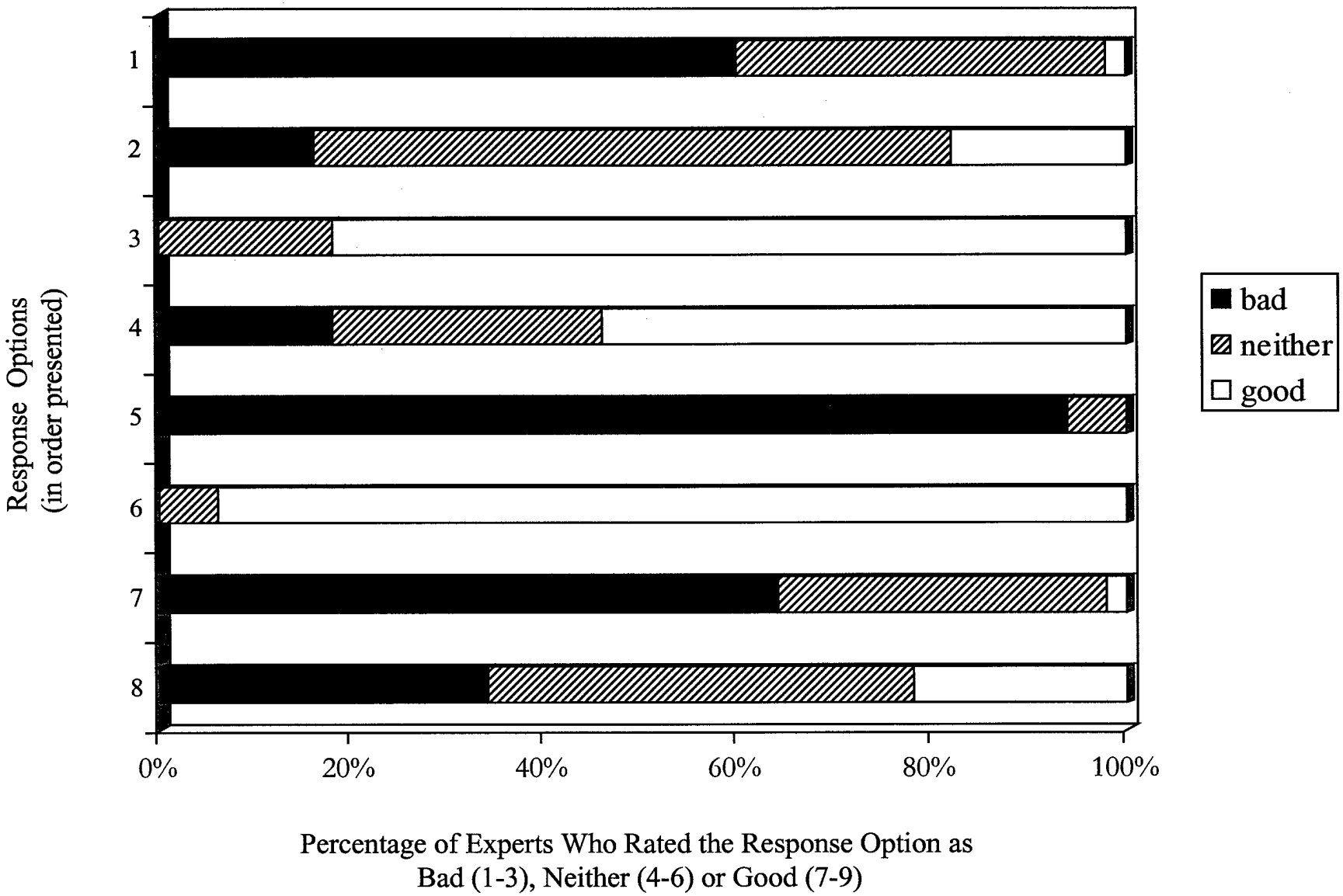
# Expert Ratings of Response Options for Scenario P8

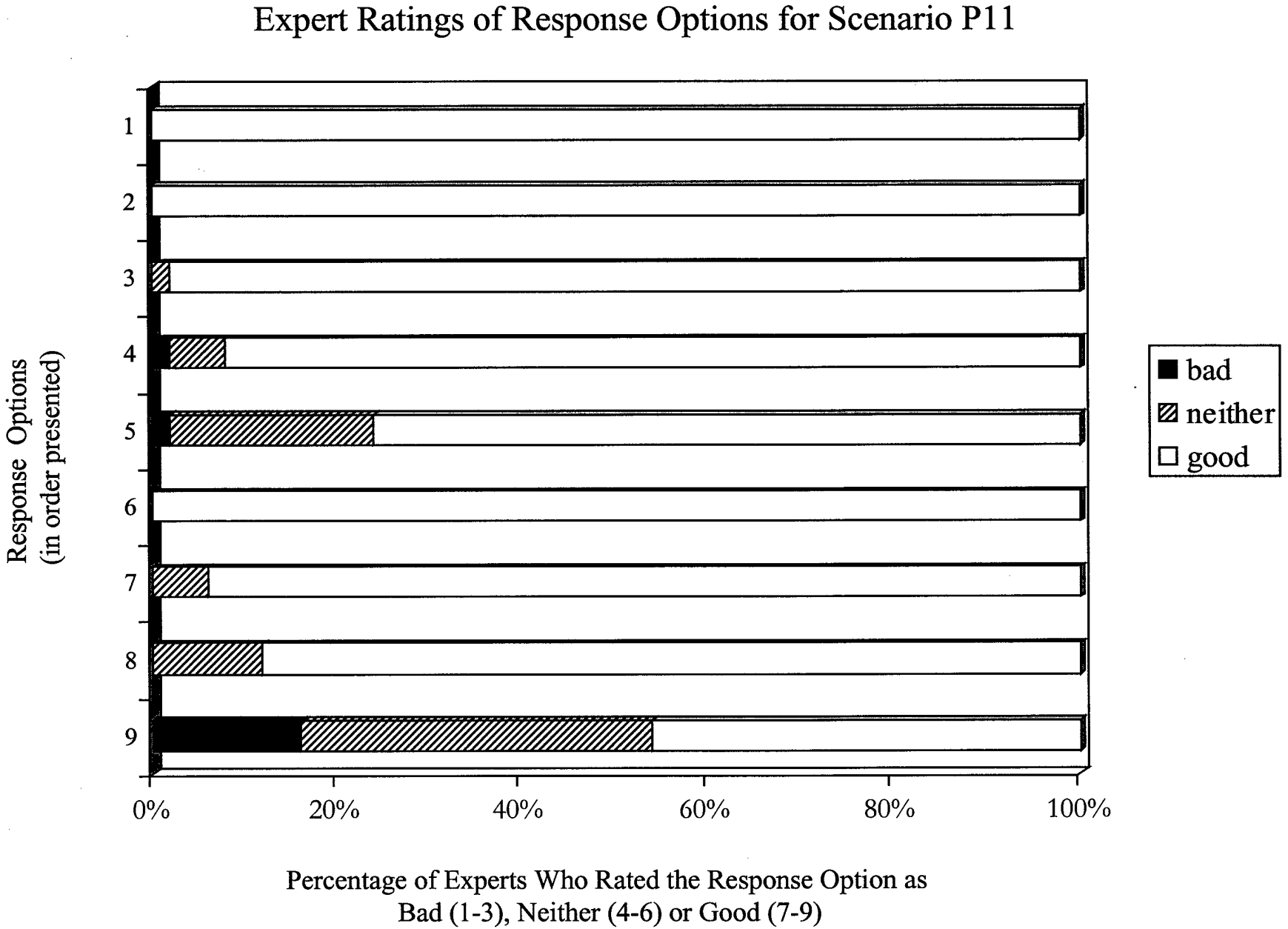


## Expert Ratings of Response Options for Scenario P9

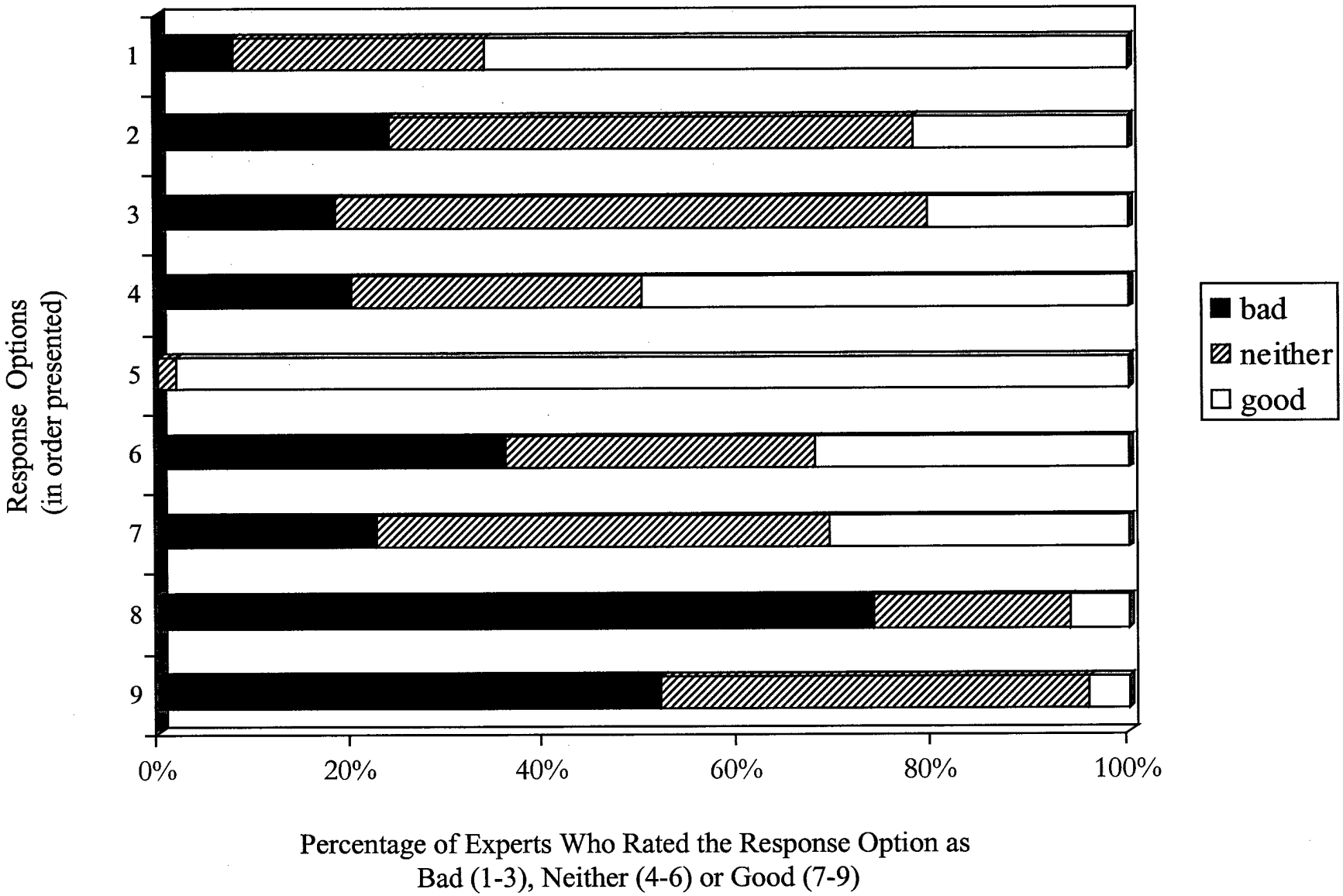


## Expert Ratings of Response Options for Scenario P10

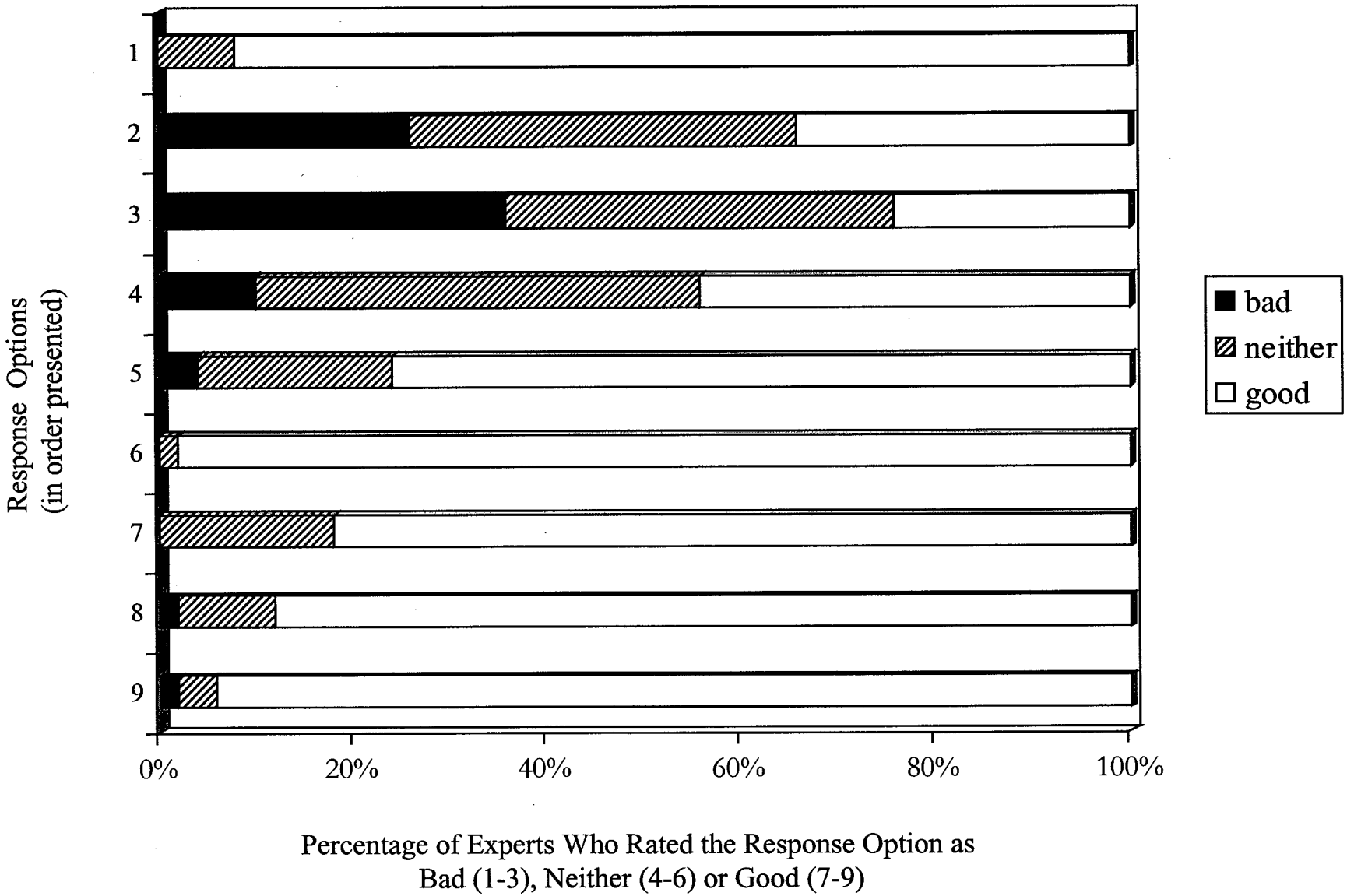



Expert Ratings of Response Options for Scenario P11
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
0%
20%
40%
60%
80%
100%
bad
neither
good
Percentage of Experts Who Rated the Response Option as
Bad (1-3), Neither (4-6) or Good (7-9)

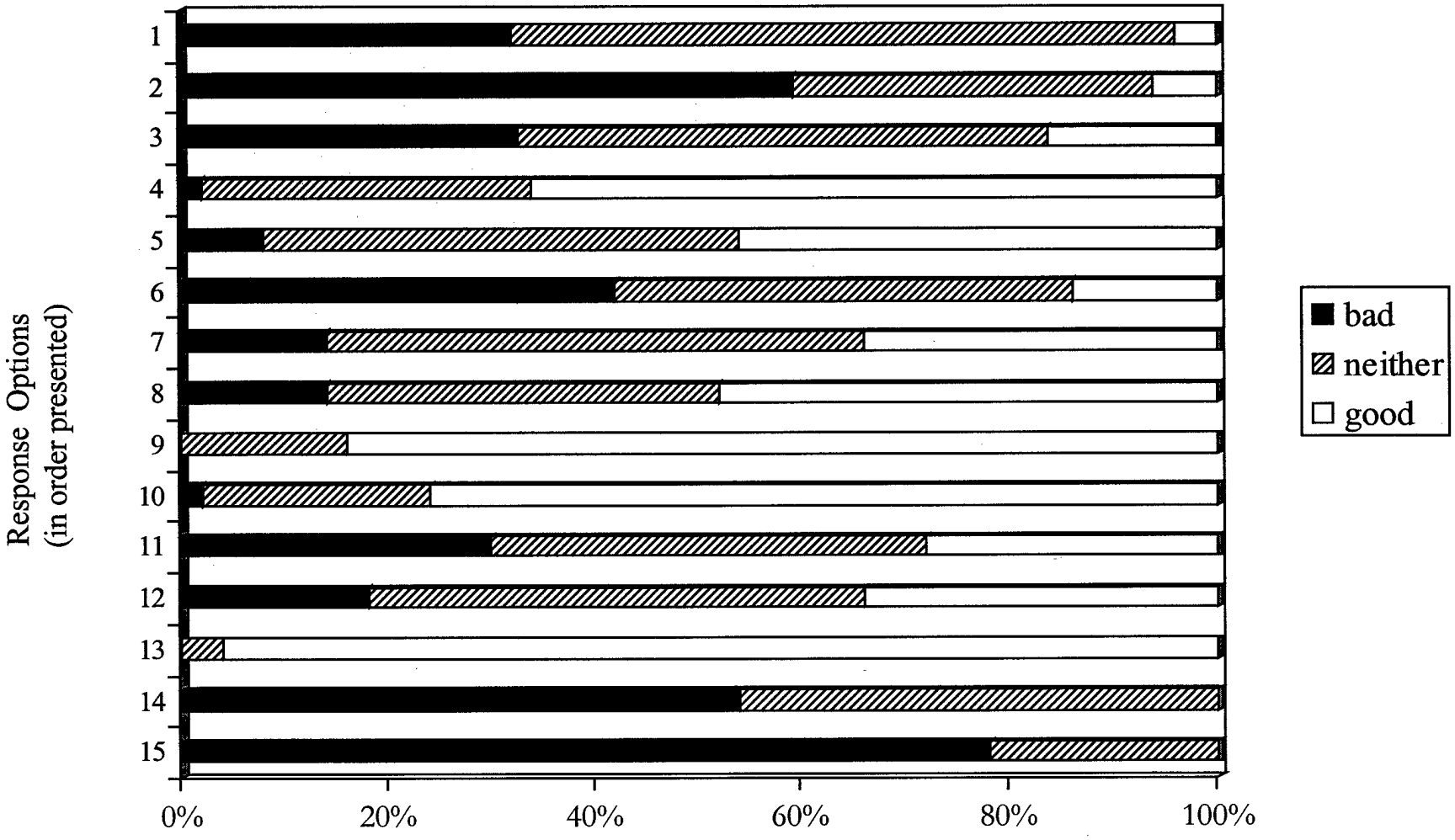
# Expert Ratings of Response Options for Scenario P12



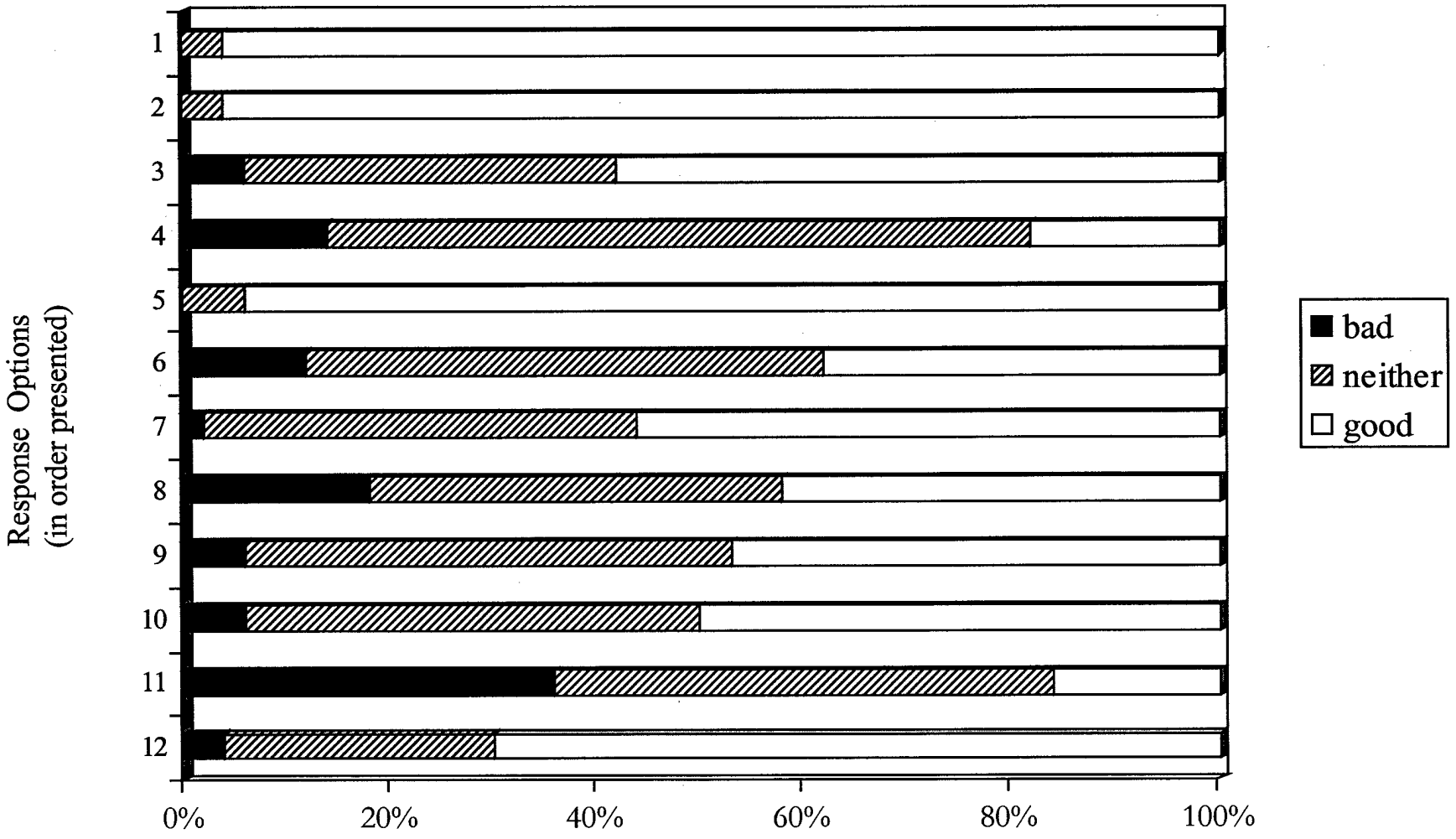
# Expert Ratings of Response Options for Scenario P13



# Expert Ratings of Response Options for Scenario P14



# Expert Ratings of Response Options for Scenario P15



# APPENDIX C

## ANSWER SHEETS FOR PLATOON LEADER QUESTIONNAIRE

Answer Sheet
Scenario P1

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P1. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P2

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P2. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P3

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P3. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| 11 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P4

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P4. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P5

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P5. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| 11 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P6

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P6. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P7

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P7. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P8

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P8. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| 11 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P9

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P9. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P10

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P10. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P11

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P11. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P12

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P12. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P13

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P13. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| Total | | _____ |

Answer Sheet
Scenario P14

For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P14. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| 11 | _____ | _____ |
| 12 | _____ | _____ |
| 13 | _____ | _____ |
| 14 | _____ | _____ |
| 15 | _____ | _____ |
| Total | | _____ |

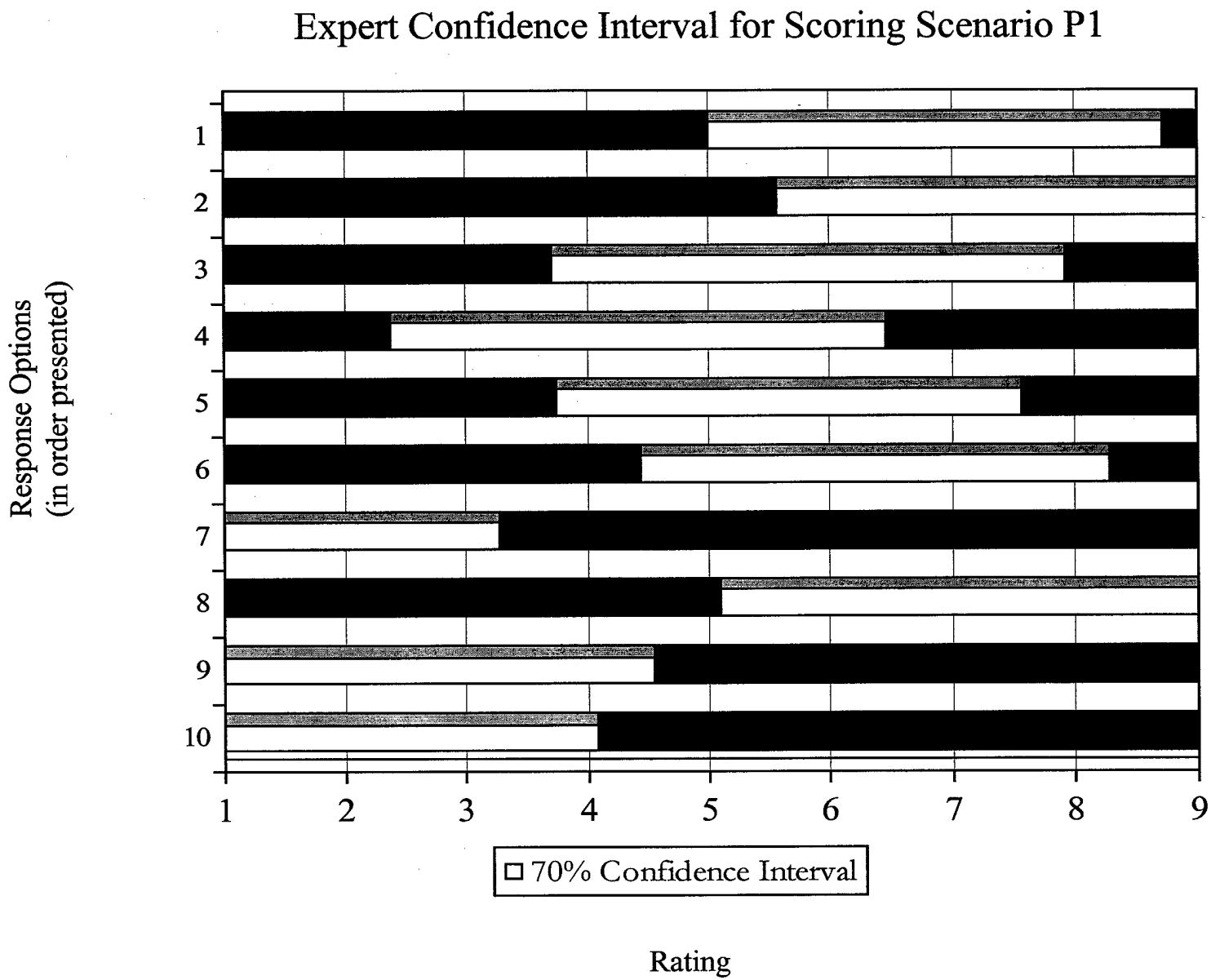
Answer Sheet
Scenario P15

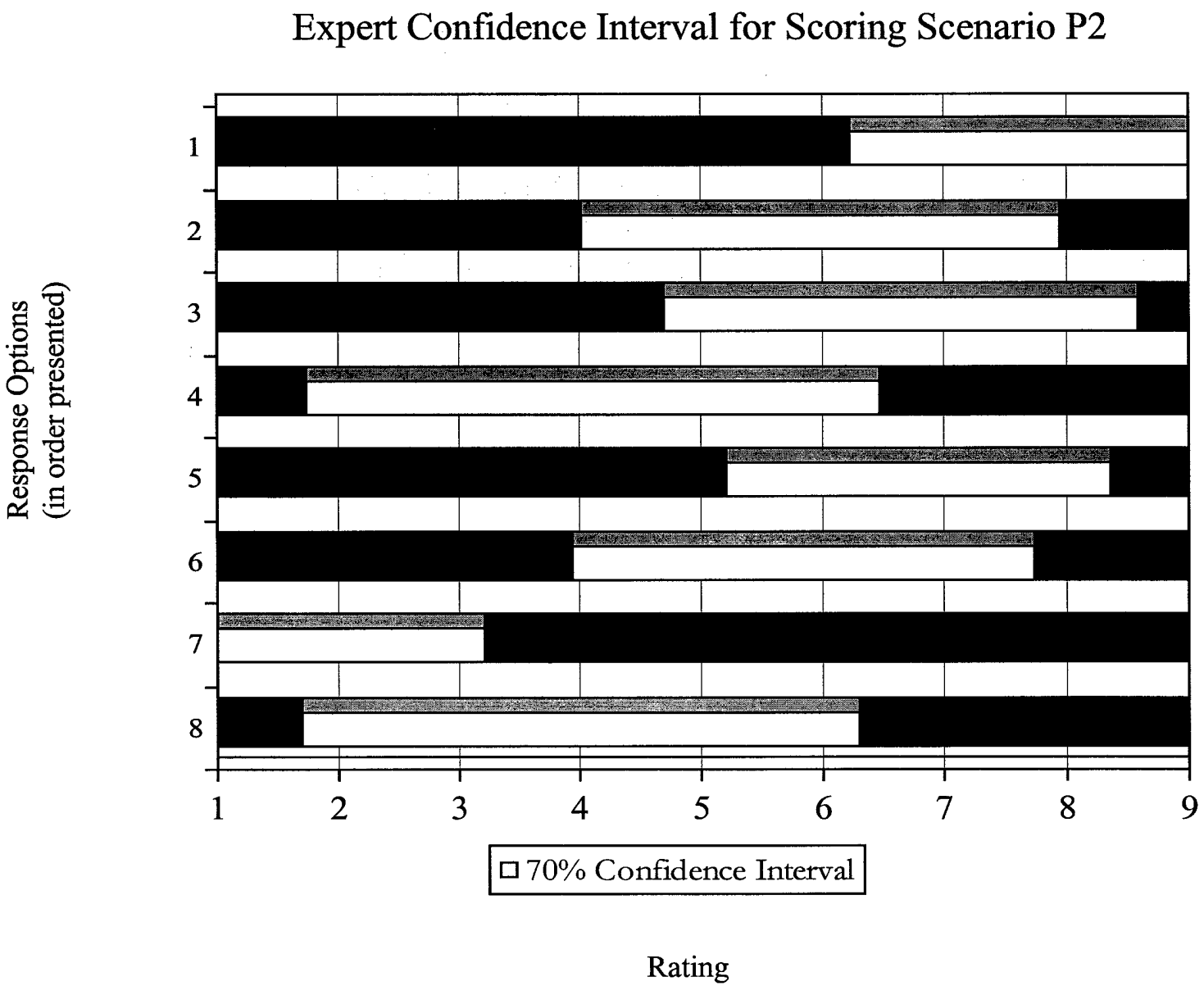
For each response option, record your answer in the first column. Then refer to the scoring chart for scenario P15. If your response falls within the confidence interval (white), record a "1" for your score on that response option. If your response falls outside the confidence interval (black), record a "0" for that response option. After scoring all options for a particular question, add up the points and record in the space provided.

| Response | Answer | Score |
|---|---|---|
| 1 | _____ | _____ |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
| 4 | _____ | _____ |
| 5 | _____ | _____ |
| 6 | _____ | _____ |
| 7 | _____ | _____ |
| 8 | _____ | _____ |
| 9 | _____ | _____ |
| 10 | _____ | _____ |
| 11 | _____ | _____ |
| 12 | _____ | _____ |
| Total | | _____ |

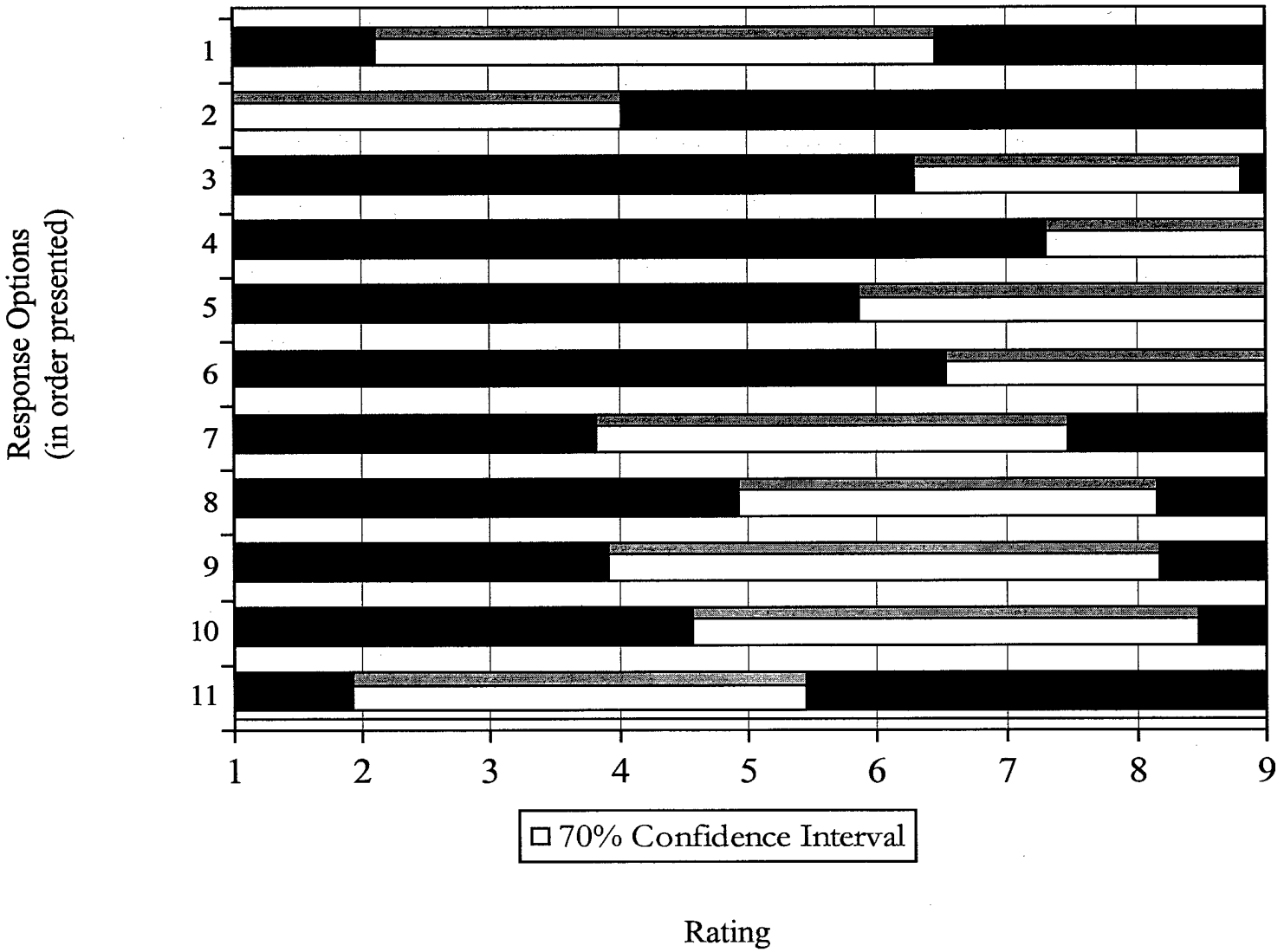
# APPENDIX D

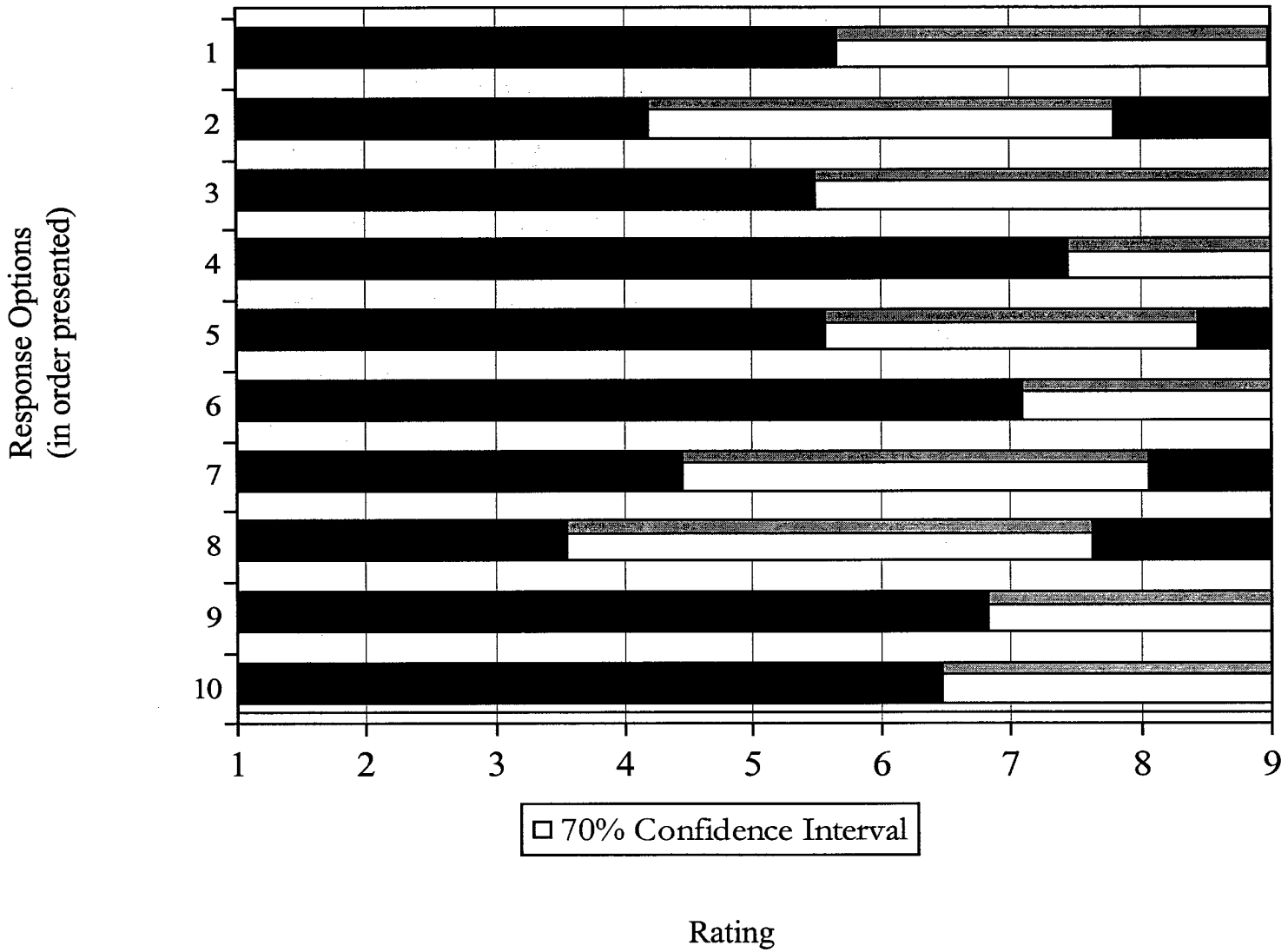
## SCORING CHARTS FOR PLATOON LEADER QUESTIONNAIRE

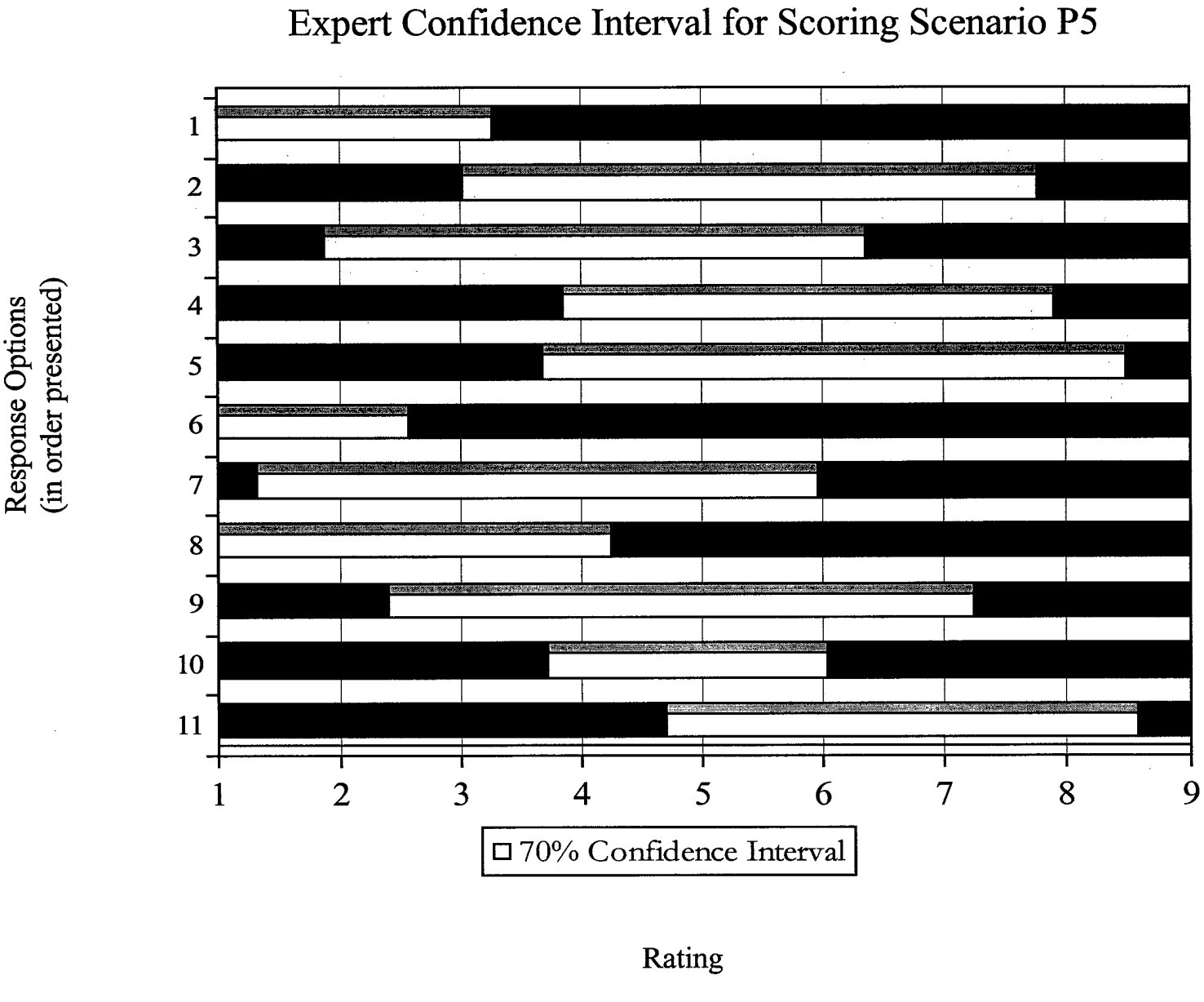

Expert Confidence Interval for Scoring Scenario P1
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

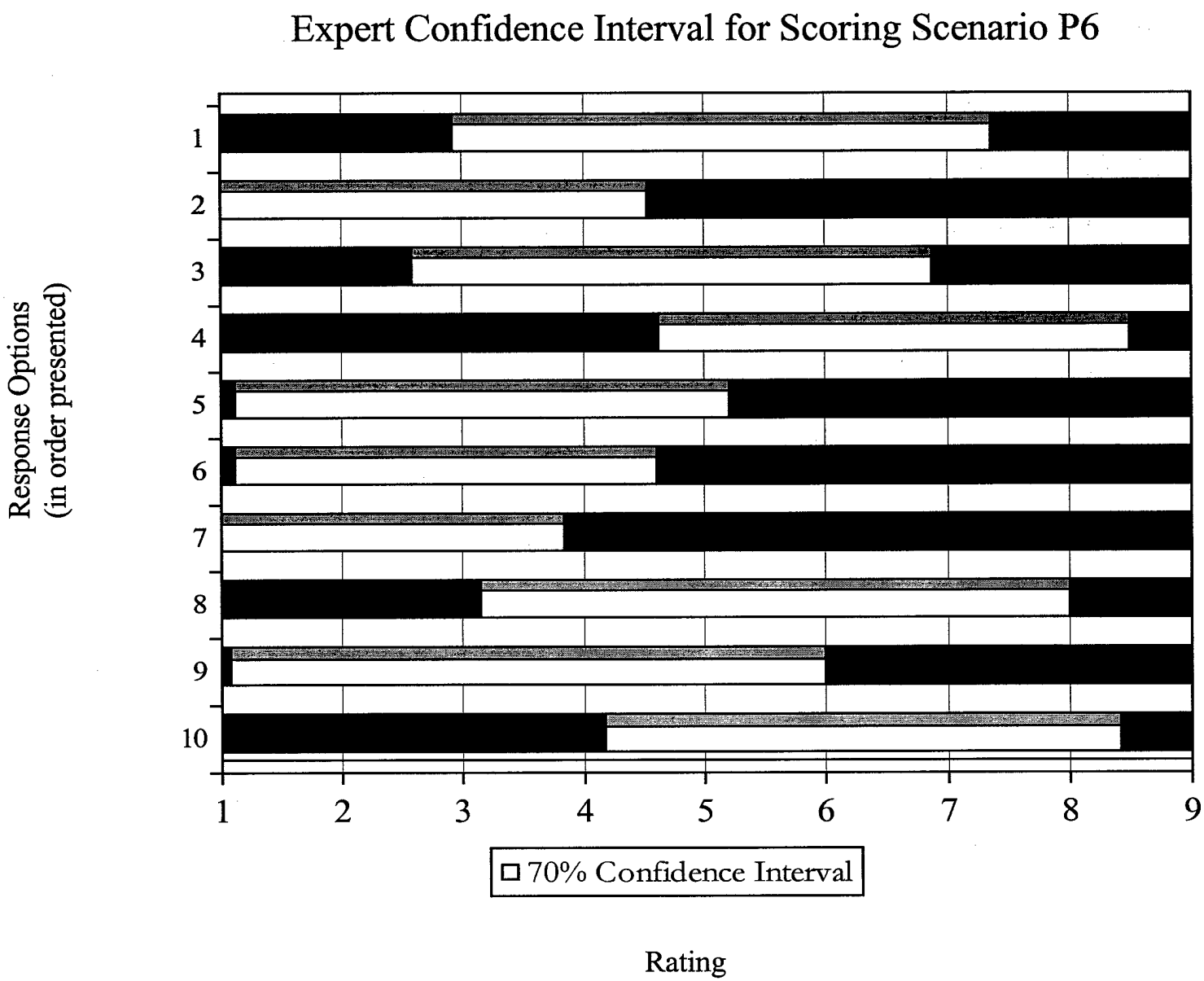

Expert Confidence Interval for Scoring Scenario P2
Response Options
(in order presented)
1
2
3
4
5
6
7
8
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

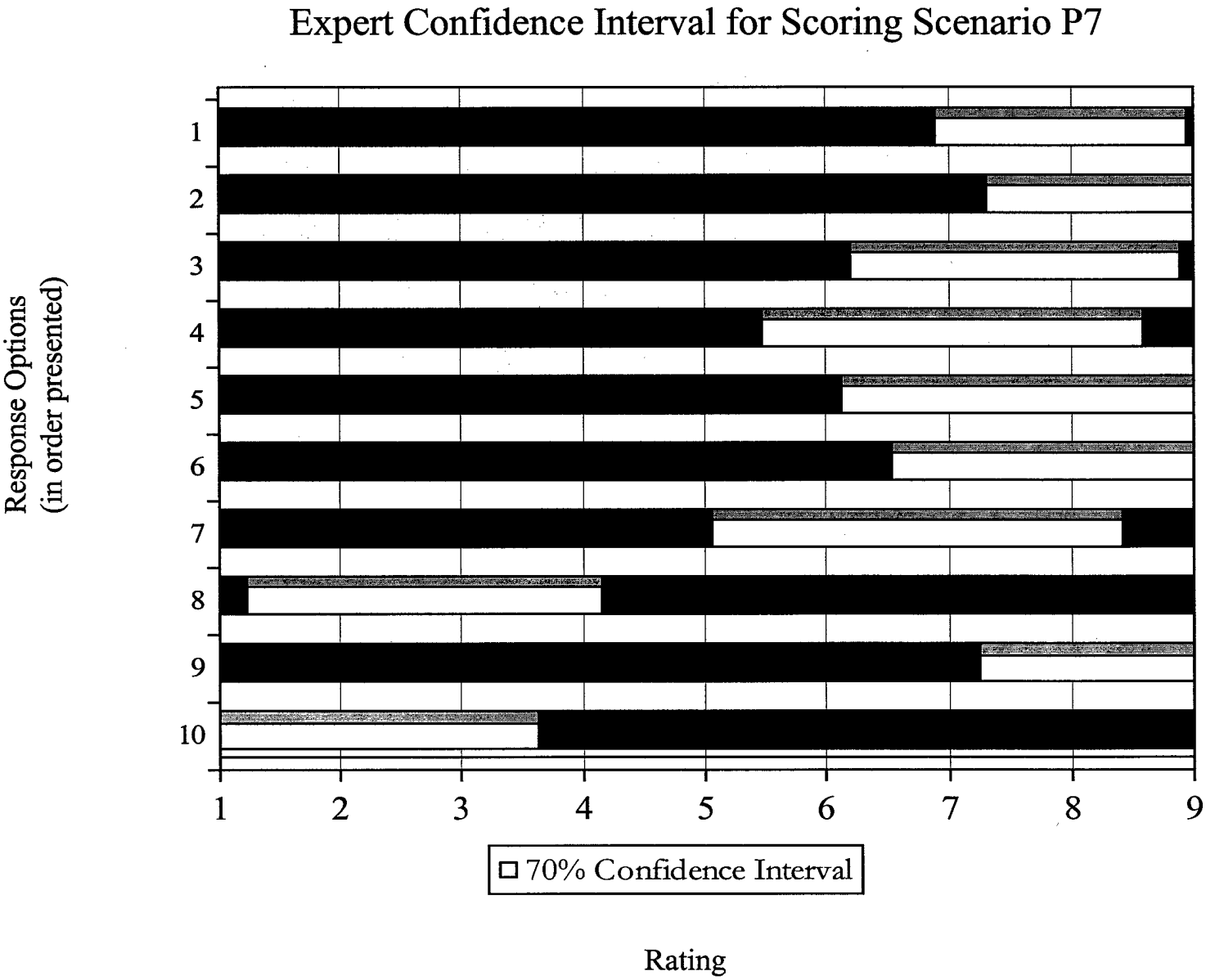
# Expert Confidence Interval for Scoring P3

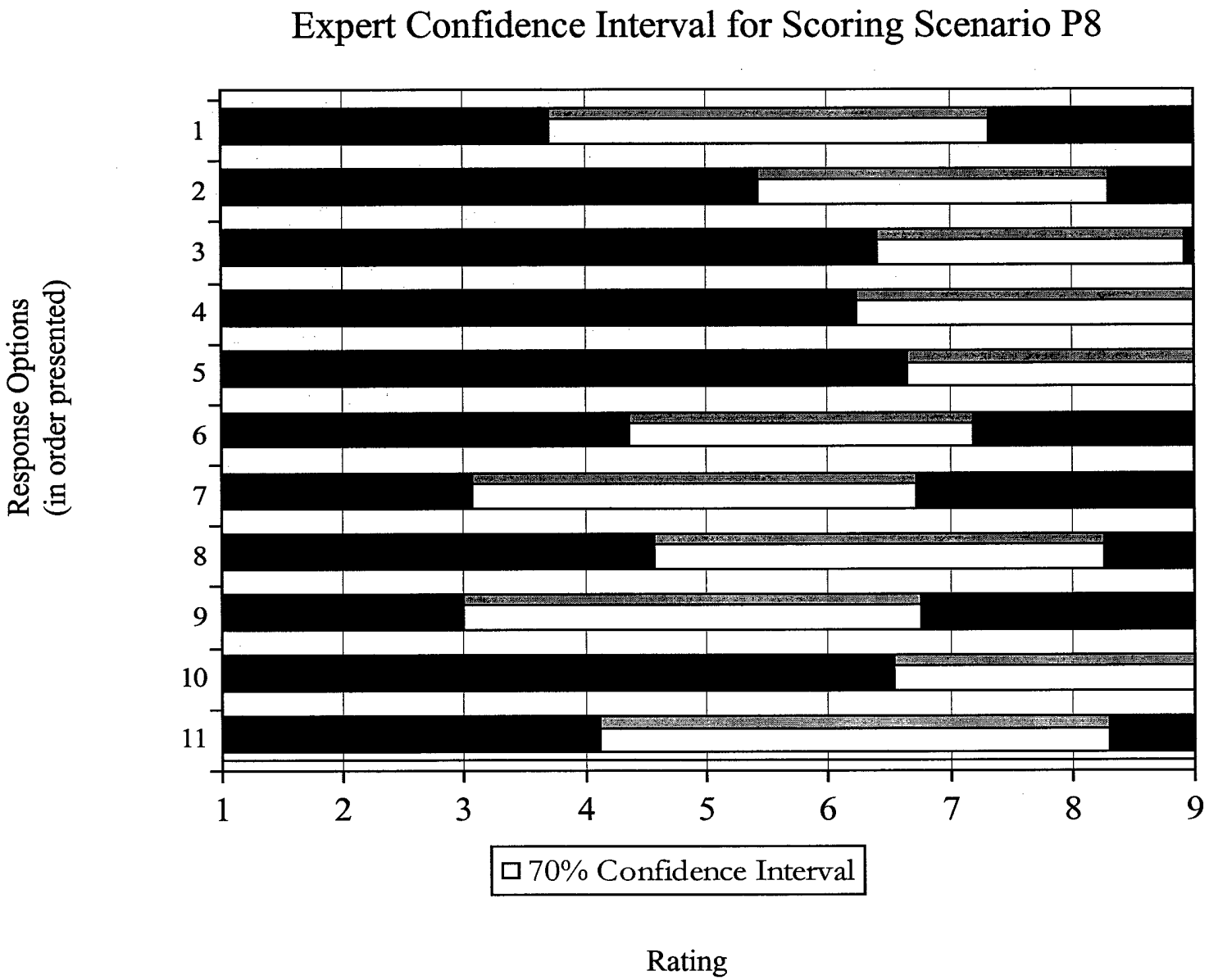


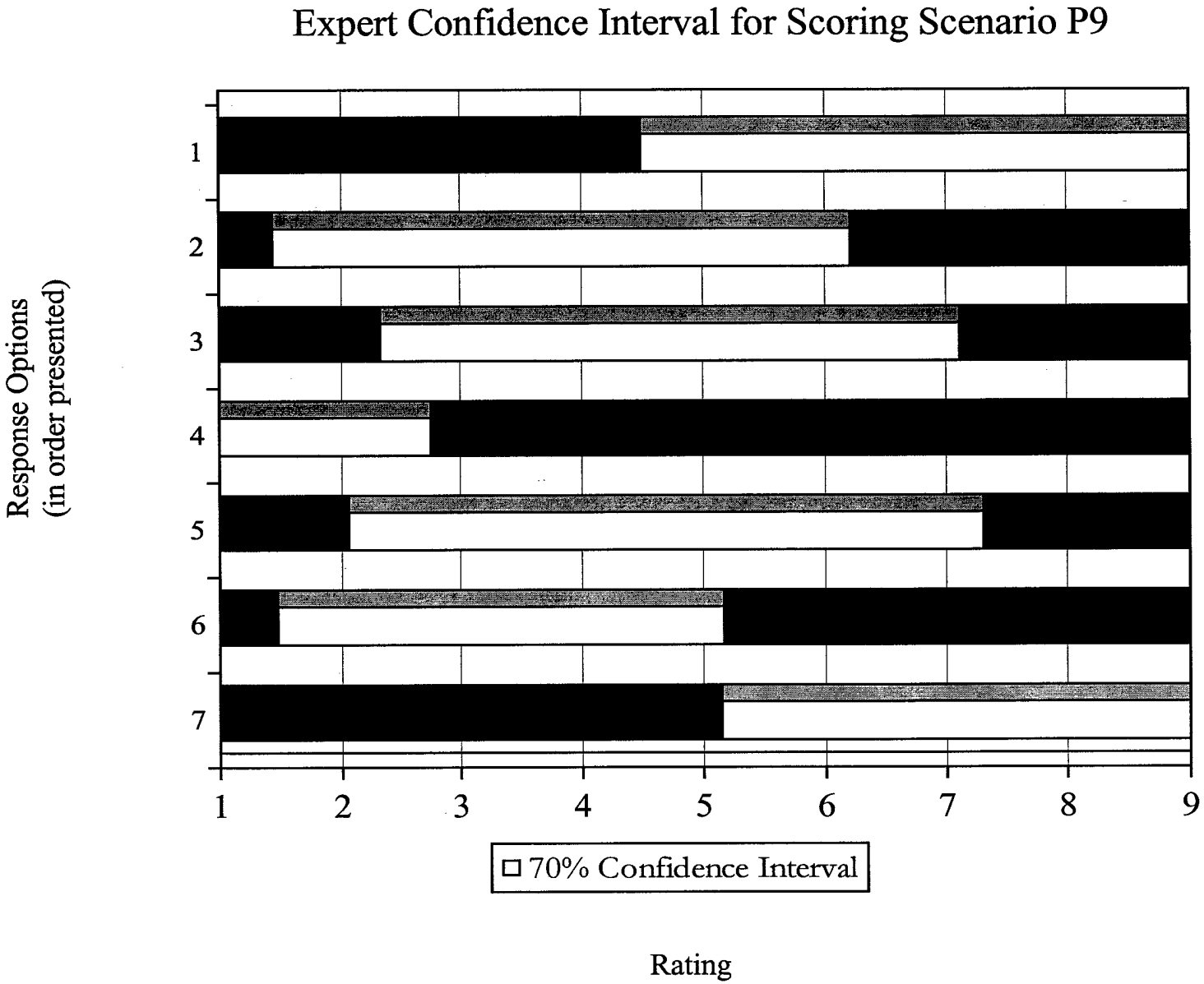

Expert Confidence Interval for Scoring Scenario P4
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

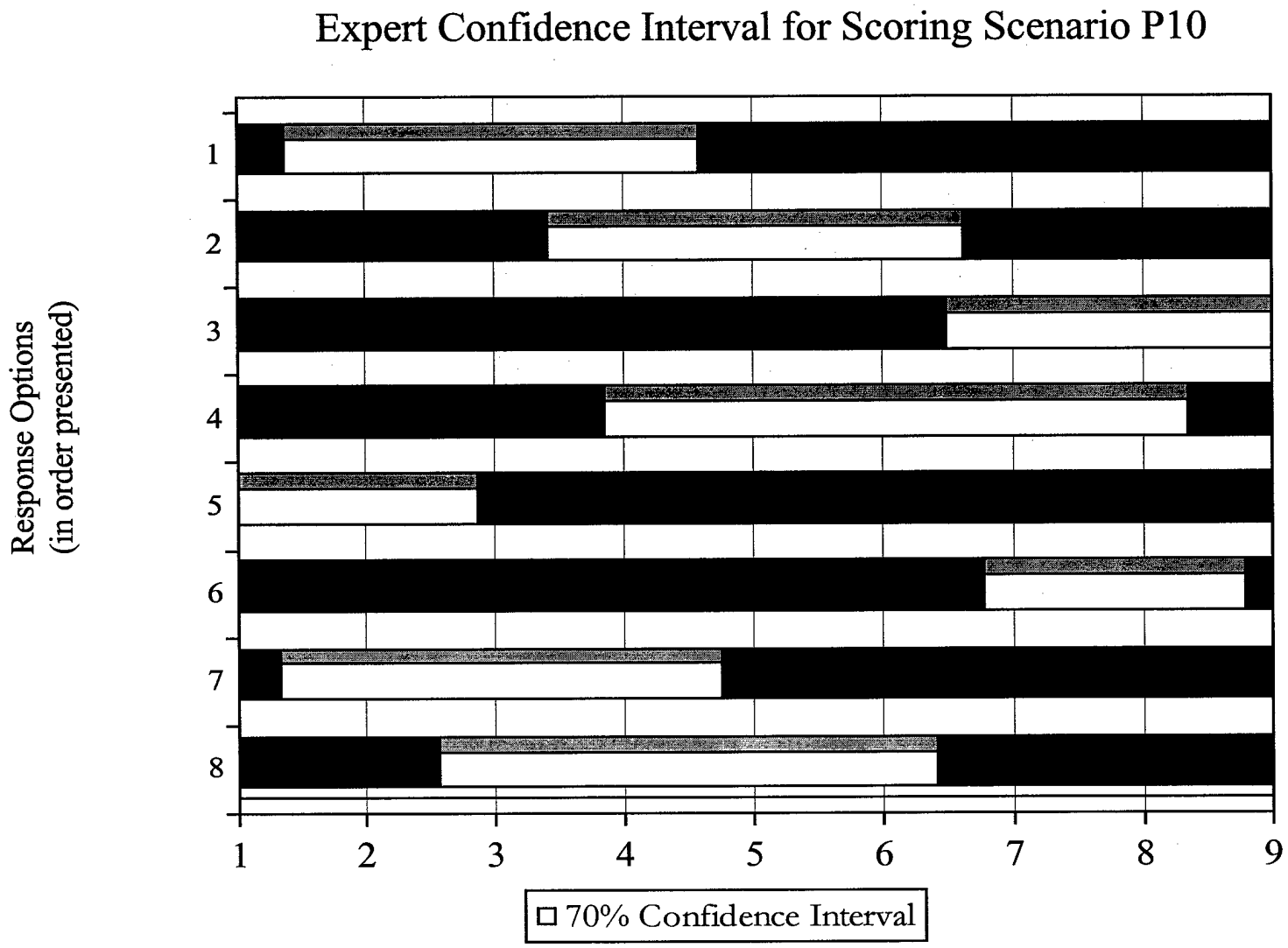

Expert Confidence Interval for Scoring Scenario P5
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
11
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

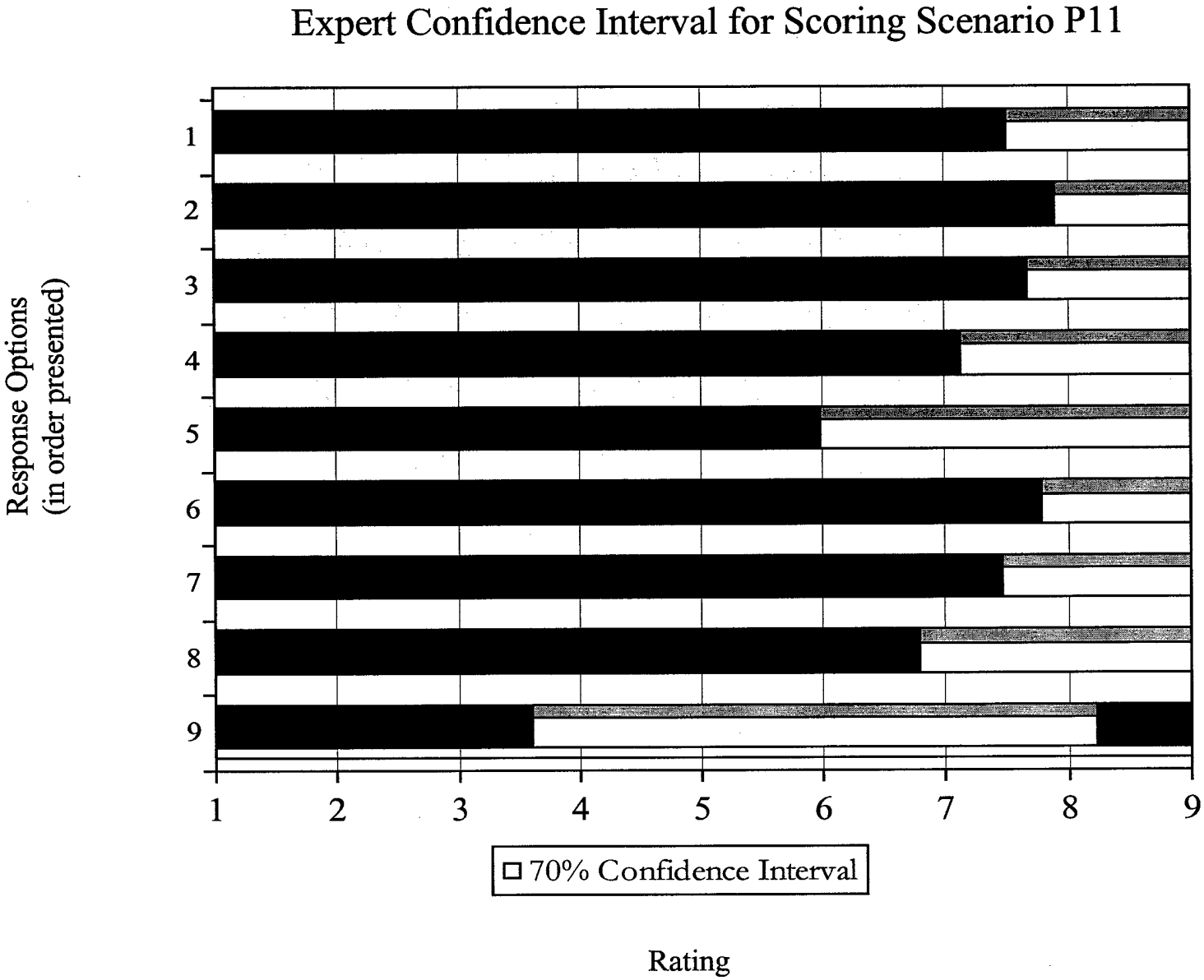

Expert Confidence Interval for Scoring Scenario P6
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

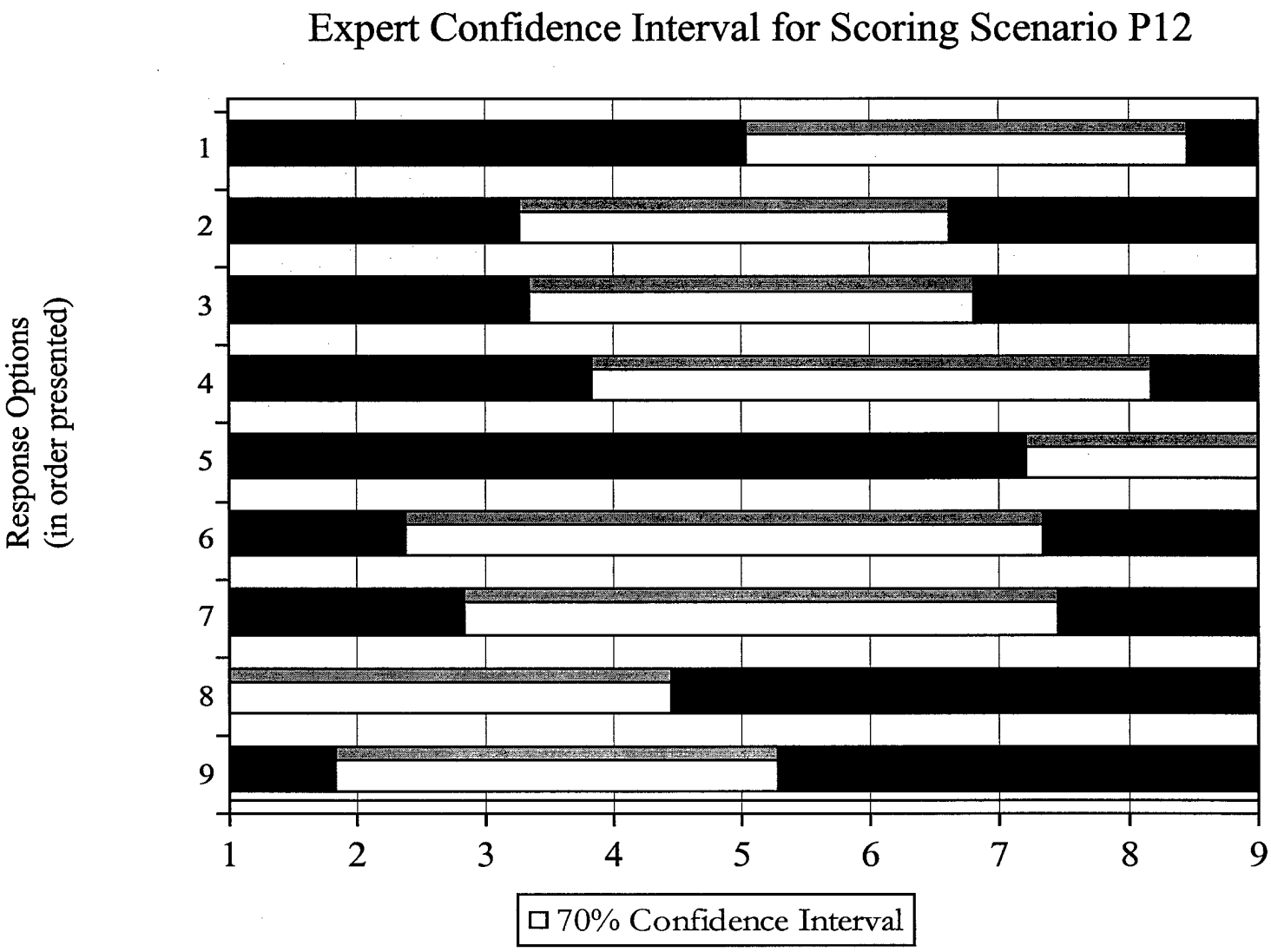

Expert Confidence Interval for Scoring Scenario P7
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

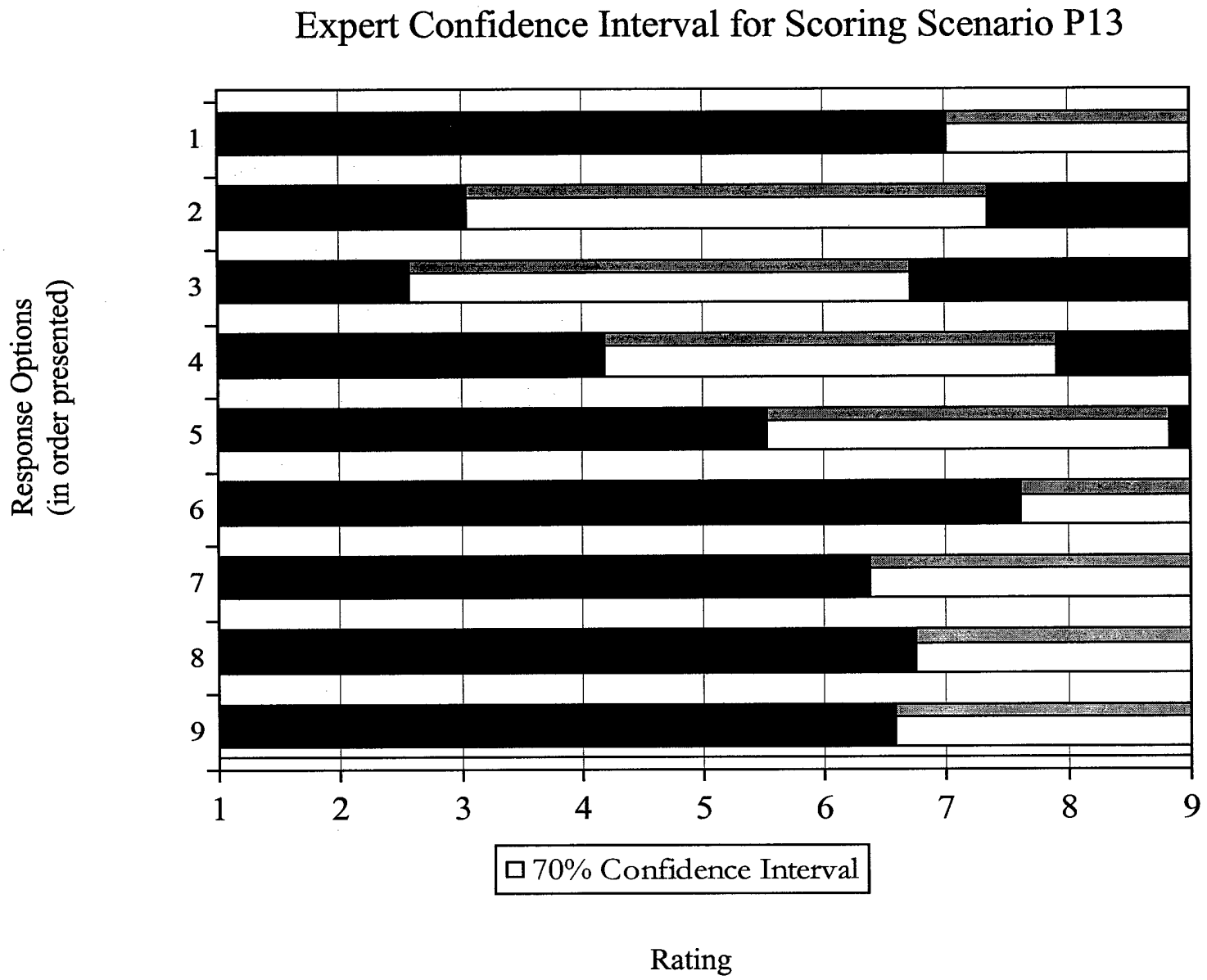

Expert Confidence Interval for Scoring Scenario P8
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
11
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

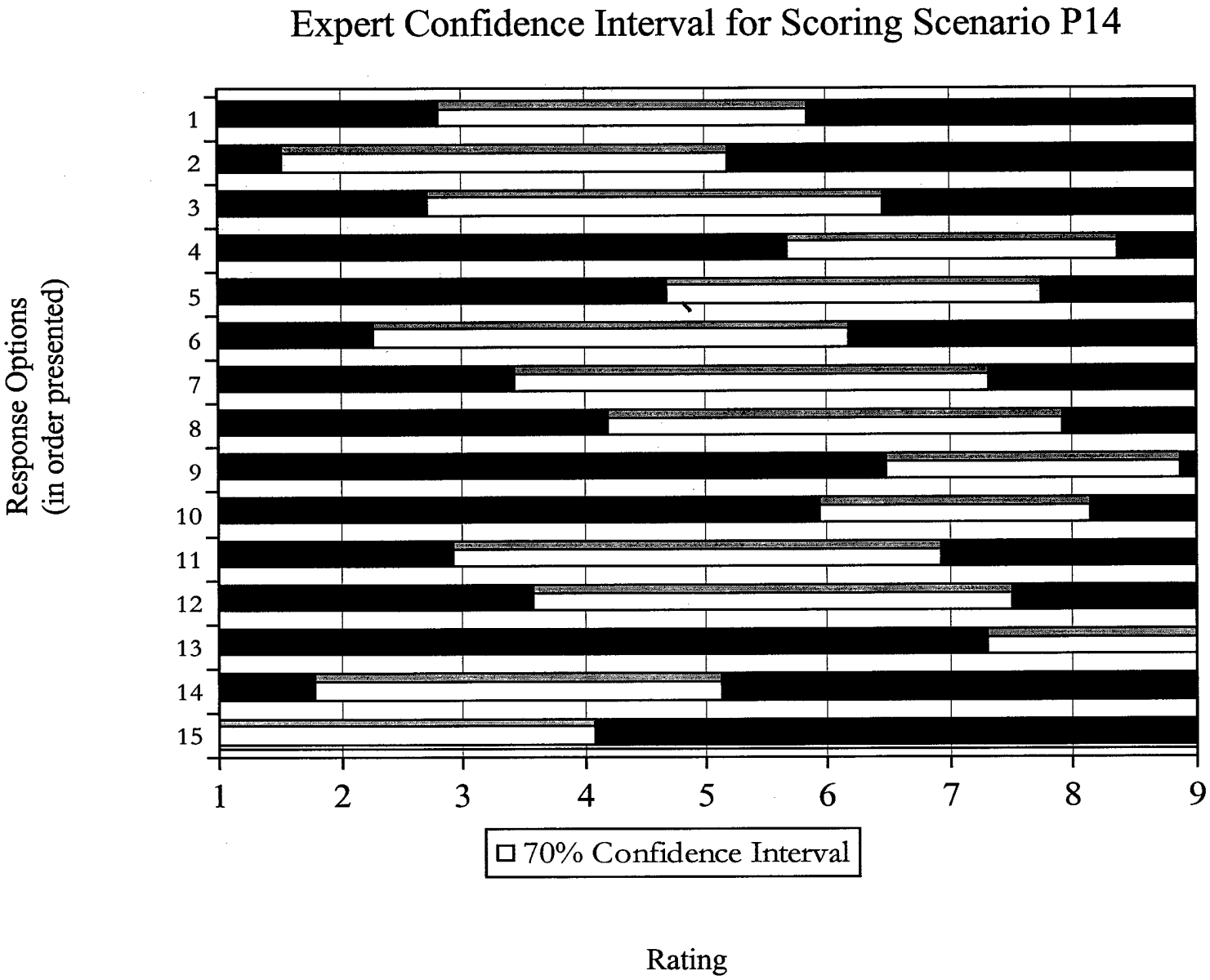

Expert Confidence Interval for Scoring Scenario P9
Response Options
(in order presented)
1
2
3
4
5
6
7
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating

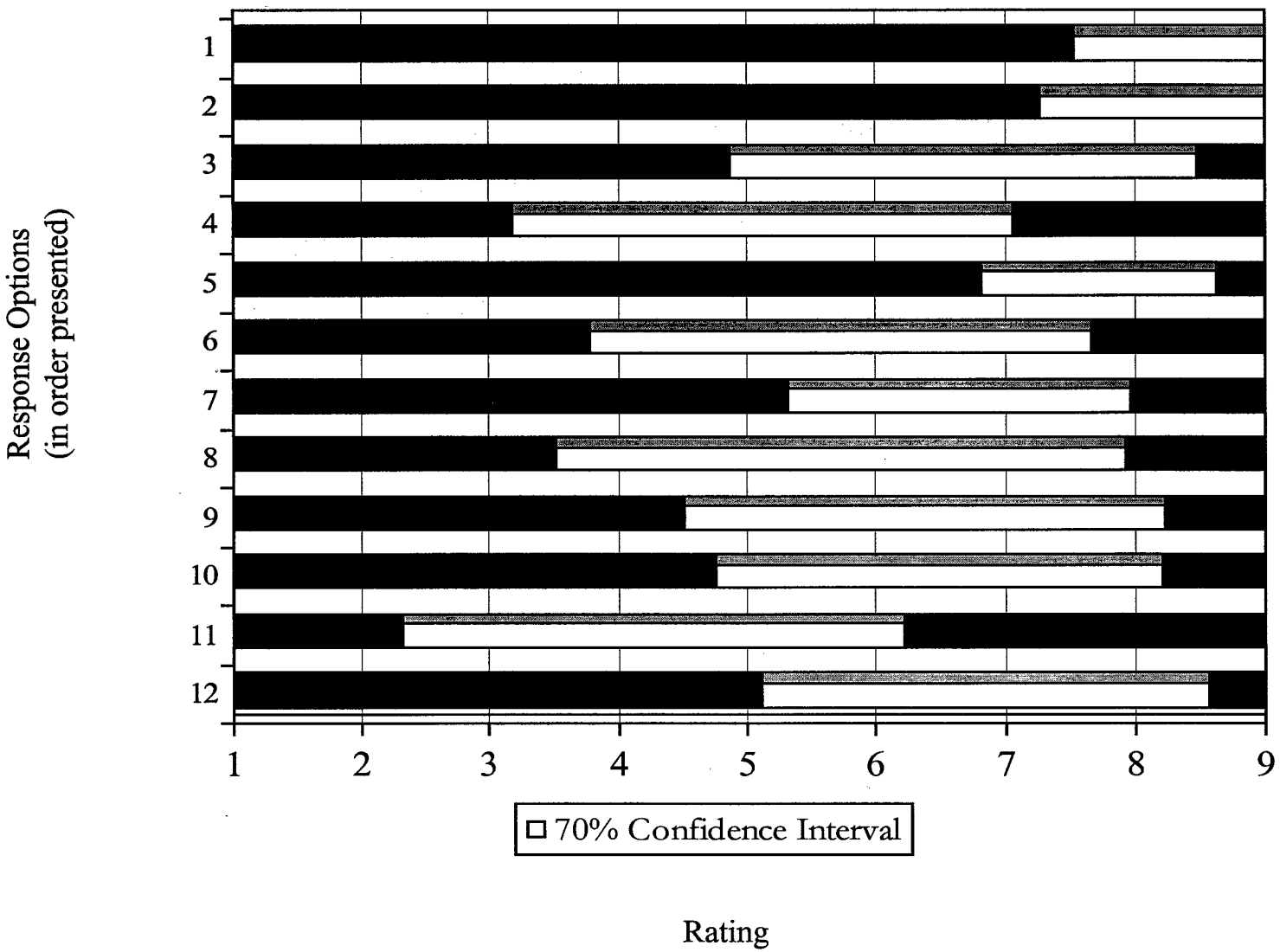

Expert Confidence Interval for Scoring Scenario P10
Response Options
(in order presented)
1
2
3
4
5
6
7
8
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating


Expert Confidence Interval for Scoring Scenario P11
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating


Expert Confidence Interval for Scoring Scenario P12
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating


Expert Confidence Interval for Scoring Scenario P13
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating


Expert Confidence Interval for Scoring Scenario P14
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating


Expert Confidence Interval for Scoring Scenario P15
Response Options
(in order presented)
1
2
3
4
5
6
7
8
9
10
11
12
1
2
3
4
5
6
7
8
9
70% Confidence Interval
Rating